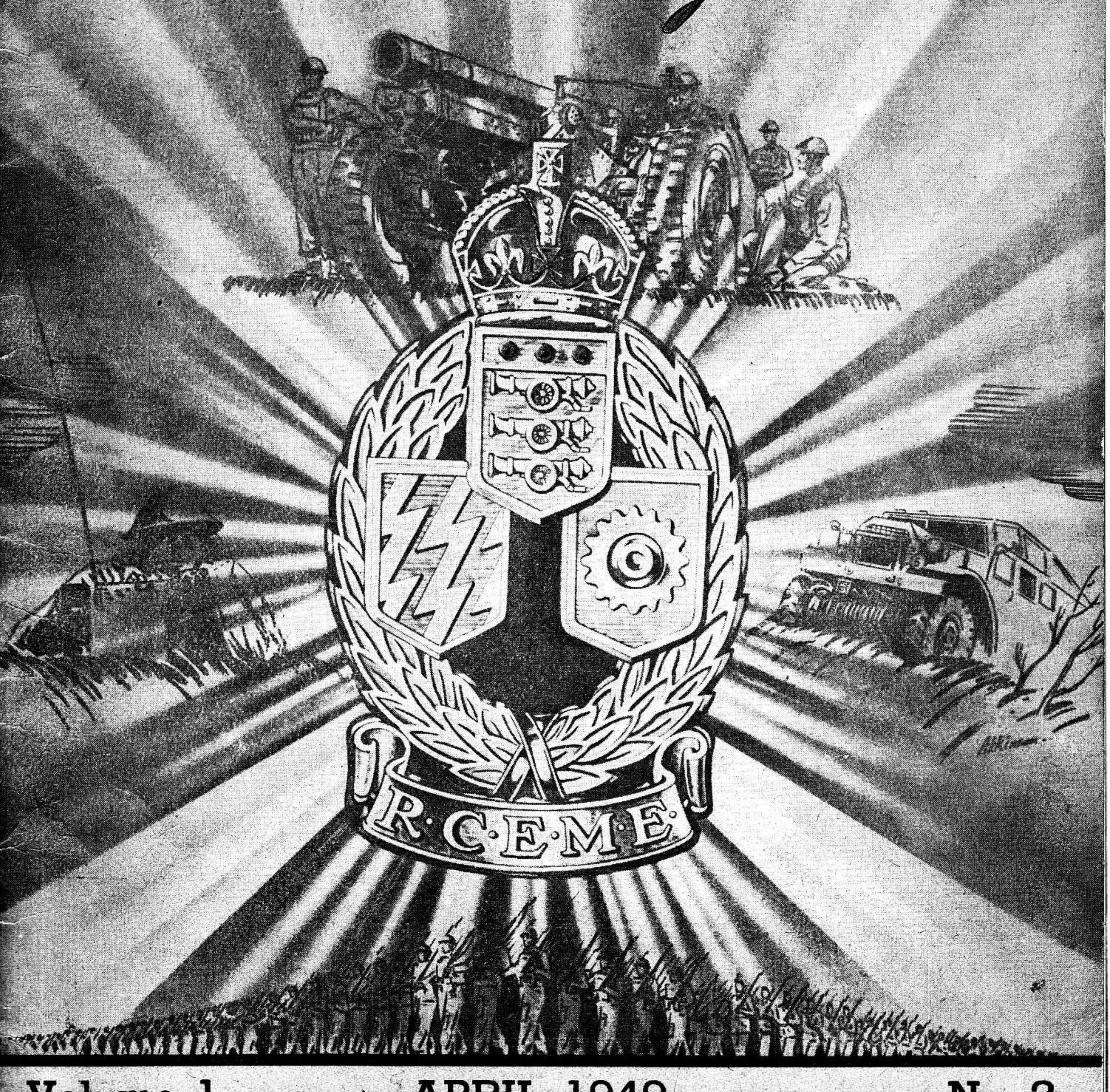
Maclean

The RCEME Quarterly



Volume 1 APRIL 1949 No. 2

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PUBLISHED BY THE
DIRECTORATE OF MECHANICAL ENGINEERING
A.H.Q OTTAWA

THE RCEME QUARTERLY

THE INFORMATION AND STATEMENTS HEREIN ARE NOT TO BE QUOTED AS AUTHORITY FOR ACTION. THE QUARTERLY IS PUBLISHED TO ASSIST RCEME PERSONNEL IN KEEPING ABREAST OF CURRECT TRENDS AND DEVELOPMENTS AND TO CIRCULATE INTERESTING NEWS ABOUT THE CORPS.

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EDITORIAL

We are presenting as a loose-leaf insert, a RCEME song, with words and music by Sergeant G. W. Rawling of 204 Base Workshop, London.

This song was sung by the author at the recent RCEME conference at the school, Barriefield, and was well received by those who heard it. The Director has expressed the wish that we publish it for use by members of the Corps, not as 'the' but as 'a' RCEME song.

Some time before the conference Lieutenant Colonel Miller had suggested to Sergeant Rawling that he should write a song for the Corps and present it there. With this in mind the composer "endeavoured to compose a song with an original melody and incorporating as many of the functions and ideals of RCEME in the lyrics as possible". How very well he succeeded, we'll leave to you to decide when you've heard it.

We asked the composer for a very short biographical sketch and this is what he modestly has to say about himself.

"I studied piano and theory with Toronto Conservatory of Music and the Royal Academy of Music for approximately ten years, during which time I played in several bands and orchestras in the Toronto area. At the present time I am conductor of a 35 piece band in London, under the auspices of a veteran's organization."

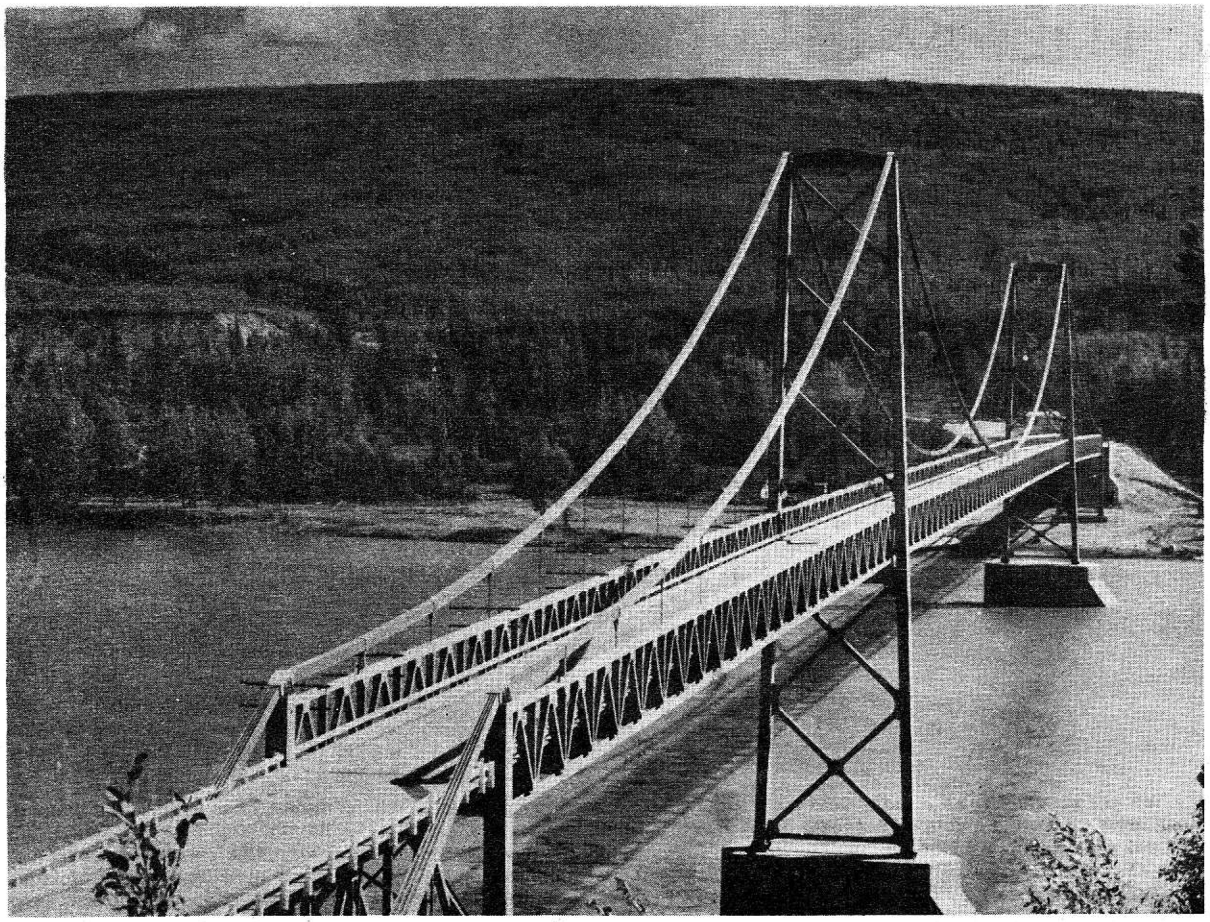
Incidentally, band-leader Rawling is now scoring the melody in march form for his own band and has offered that also for use by the Corps.

Whether or not this song is officially adopted remains to be seen, but we feel that it is something the Corps has needed since its inception. Sergeant Rawling deserves much credit for making a fine contribution toward the realization of an official RCEME Corps Song.

* * *

MILE 40 TO 1083 N.W.H.S.

BY CAPT H.C. BANHAM – PHOTOS BY ARMY PUBLIC RELATIONS



BRIDGE OVER PEACE RIVER 36 MILES NORTH OF DAWSON CREEK

The usual method of proceeding to Whitehorse or other points of the Northwest Highway system is by RCAF sked. To a person of my habits the disadvantage of this method is propelling myself out of a warm bed between 0500 and 0530 hours. Although the aircraft does not leave until 0800 hrs, passengers must present themselves at the RCAF operations centre not later than 0630 hours to allow for loading of baggage, etc.

The weather was cold, the temperature having descended to 25 below zero during the night. In anticipation of the much-discussed Yukon weather, I got the usual parka and flying boots and an unattractive suit of long underwear. It so happened that a Chinook visited the Highway at the same time as I did. The temperature rose to 42 above at times and the weather generally was the loveliest I have ever experienced at this time of year.

I arrived at the take-off point on time, dressed "a la sourdough". The aircraft was a Dakota with seats along the sides. Unfortunately this arrangement makes it very difficult to get a view of the terrain during the flight. By acrobatic twisting it is possible to obtain the odd glimpse of the countryside which, for the first lap of the flight, is very similar to that around Edmonton.

The trip to Fort St. John was uneventful. Upon arrival I was met by Captain R. L. Davis OIC No. 220 Workshop at Fort Nelson. Captain Davis has spent almost two years in these parts and is a most informative host on matters of local interest as well as RCEME functions and problems. No. 220 Workshop has an AWD at Fort St. John presided over by WO I Armstrong who has his share of the usual problems of heavy commitments and inadequate accommodation.

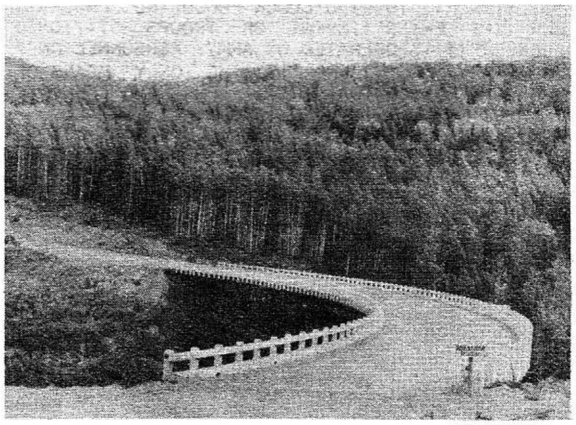
That afternoon we left by car for Fort Nelson. By this time the temperature was well above freezing and the road very slippery in spots. The first impression that I got of the Highway is that it is amazingly well maintained, certainly far superior to many gravel highways encountered elsewhere in Canada. Due to the early dusk most of the journey to Fort Nelson was in darkness. However, there was sufficient moonlight to reveal the towering pines stretching in all directions from the road, and the mountains in the distance. At this point I began to notice the type of scenery that has been pictured as typical of the North country.

Workshop at Fort Nelson

Fort Nelson at Mile 300 consists mainly of the RCEME

Workshop and accompanying buildings such as mess, canteen, power house and single and married quarters. Comfortable hotel accommodation is available nearby for tourists and visitors. The OIC Workshop acts as the Garrison Commandant and has a heavy administrative responsibility running the mess, canteen, school and other organizations which are of vital importance in an isolated setup of this type.

Everywhere along the highway are encountered many problems both of a RCEME and administrative nature, peculiar to the locality. The extreme cold and the long distances to be travelled raise technical problems which are practically non-existent elsewhere; the water available at Fort Nelson for instance, is contaminated by oil and unfit for drinking. All drinking water for the community must be hauled from the RCAF Station (Fort Nelson Air Base) approximately six miles away.



BRIDGE OVER KISKATINAW RIVER

By this time I had acquired the coffee - drinking habit which seems so prevalent along the highway. Coffee is available almost everywhere in seemingly endless quantities. During my visit I consumed gallons.

I had now become used to the sight of many large dogs. Although fearsome in aspect they are almost without exception very friendly. Apparently they are somewhat of a nuisance as one may not leave food outside without it vanishing promptly. The dogs have also been known to enter homes through doors left open and steal any food within reach.

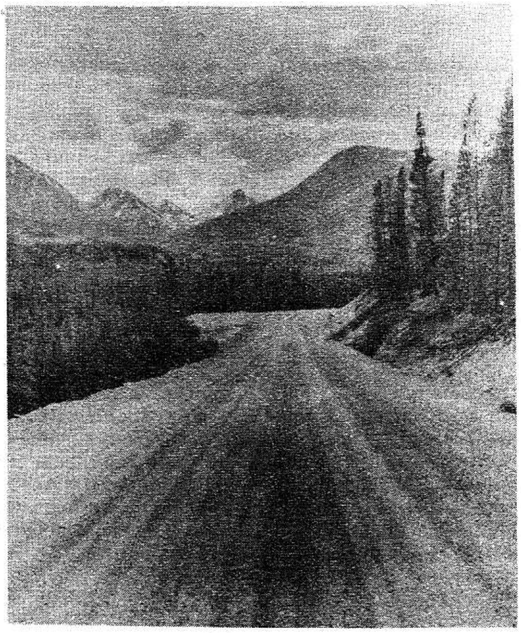
Although the only game in evidence was the odd grouse and squirrel, I was told that moose and bear are frequently seen along the road. The bears at times have come boldly into the encampment and some are tame enough to be fed by hand. The occasional wolf has been seen on the highway and is a lucrative catch due to the $25.00 bounty.

Dangerous Road Conditions

After a day in Fort Nelson we departed for Watson Lake. This part of the journey is in my opinion the most scenic of all. The road leads through fairly mountainous territory and at one point reaches the highest altitude on the highway. Numerous streams are seen and the fishing is reputed to be excellent - truly a sportsman's paradise.

Mild weather had made the road extremely dangerous in spots and there were long stretches of almost sheer ice. The steep hills and sharp turns required careful attention behind the wheel. If your car did not make the top of the hill in the gear in which you started, the only alternative was to back all the way down and start again. The slippery conditions made it impossible to gear down while on the hill.

At one point we encountered a lady and her daughter enroute to Fairbanks, Alaska, in a new Meteor. They were half way up a long hill unable to go forward and afraid to go back. The poor woman who was well on in her middle years, was paralyzed with fright, and even in the cool weather her face was wet with perspiration. With our assistance they finally got started and eventually with Captain Davis at the wheel they reached Mile 492 and wisely decided to remain there until road conditions improved.



HIGHWAY LOOKING NORTH AT MILE 705

We arrived at Watson Lake late in the evening, having taken twelve hours to drive 300 miles, but the slow pace necessitated by the road condition gave me plenty of time to gaze at the scenery. Watson Lake is the beginning of the Northern section of the Highway and from there on 219 Workshop at Whitehorse takes over RCEME responsibilities. This Workshop maintains an AWD at Watson Lake to take care of small repairs for the RCAF Station and nearby maintenance camps.

There are eighteen maintenance camps at intervals along the Highway, each responsible for the maintenance of a certain section. The maintenance personnel are civilians and are supervised and directed by RCE. The RCEME responsibility for repair of maintenance equipment is divided equally between 219 and 220 Workshops, each looking after the needs of nine camps.

Captain Ellis Takes Over

At Watson Lake I was met by Captain W. E. Ellis OIC 219 Workshop, who took over the job of showing me the Northern portion of the Highway. Like Captain Davis, he has served in the North for some time and proved to be a mine of information. The trip from Watson Lake to Whitehorse was uneventful, the weather continuing mild and the road in excellent shape for driving, enough snow having fallen the previous night to overcome the ice hazard. I noted with interest that the occasional Indian would appear walking along the road, apparently miles from any habitation. Captain Ellis explained that they were mostly trappers and live in tents and makeshift accommodation.

We arrived at Whitehorse about 1830 hours, in time to change for dinner at the mess. The town is situated in a valley bounded on one side by the river and on the other by a very steep hill. On top of the hill is the air base and the married quarters area. The town is typically northern in appearance and the usual numerous dogs are quite evident.

The Bank of Commerce building is of interest to those familiar with the works of Robert W. Service. It is stated to be the original building in which Service was employed as a bank clerk during his sojourn in the Yukon. There is also a cabin in Whitehorse pointed out to tourists as formerly belonging to Sam McGee, famous as the hero of "The Cremation of Sam McGee". Lake Laberge, the site of the cremation, is situated some thirty miles from Whitehorse. While it is generally understood that Robert W. Service once stated that Sam McGee was a fictitious character, the places and names are still a thrill to lovers of his works.

Paddle Wheels and Narrow Gauge R.R.

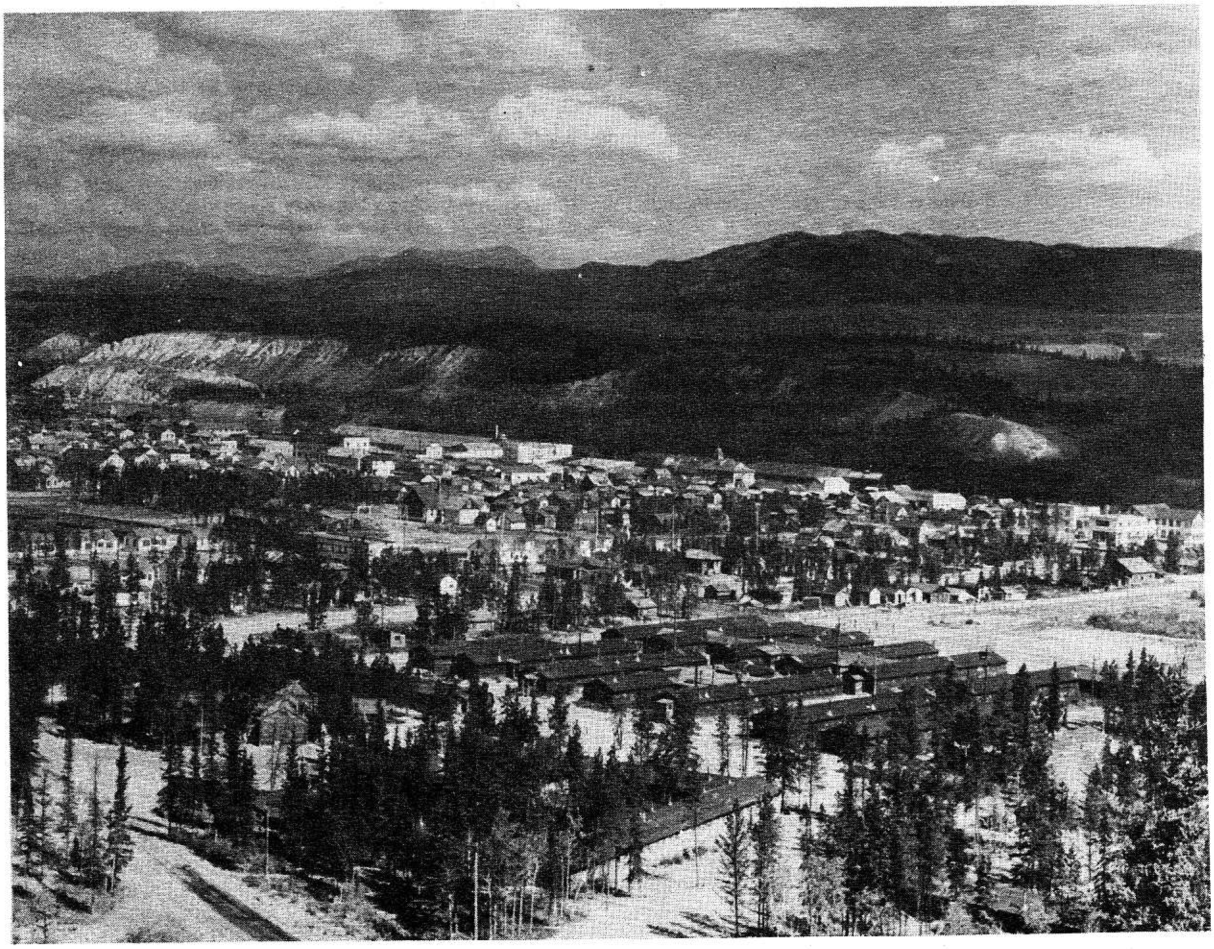
Another interesting sight to visitors is the river boats which at this time of year are in drydock awaiting the spring breakup. These boats are of the paddle-wheel type and quite large. The most amazing thing about them is the unbelievably shallow draft. The bottoms are almost flat and the waterline about three feet from the bottom. Considering that they tower more than forty feet above the waterline, I wonder that they don't topple over.

A further item of interest is the narrow gauge railway line from Skagway to Whitehorse. To us accustomed to the usual larger lines in other parts of Canada, the narrow track looks at first glance like a toy outfit.

In Whitehorse as all along the Highway, the visitor cannot help but be impressed by the friendliness and hospitality of both the civilians and military populace. The feeling is contagious and is fostered by the circumstances of isolation and interdependence.

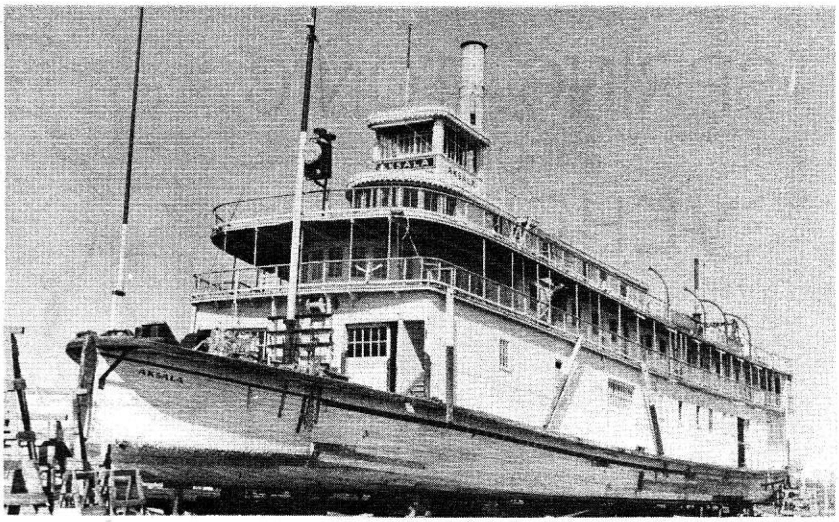
The radio station at Whitehorse is unique in its method of operation. It is operated by the Army and various personnel donate their time to prepare programmes and carry out announcing duties. The resulting entertainment for the benefit of all is a credit to everyone concerned.

(STATION CFWH AT WHITEHORSE IS OPERATED DAILY FROM 7 TO 11 O'CLOCK PRODUCING PROGRAMS FOR THE ENTERTAINMENT OF TROOPS STATIONED THERE. IT IS OPERATED BY ARMY PERSONNEL ON A VOLUNTARY BASIS AND IS THE ONLY MEANS OF BROADCASTING IN THAT AREA. PROGRAMS CONSIST OF NEWS BROUGHT IN OVER LAND LINES FROM EDMONTON; RECORDINGS FROM THE ARMED FORCES RADIO SERVICES WHICH INCLUDE ALL THE TOP SHOWS ON RADIO; ON-THE-SCENE BROADCASTS OF LOCAL HAPPENINGS; A HALF-HOUR CHURCH PROGRAM EVERY SUNDAY AND LOCAL ANNOUNCEMENTS. --THE EDITOR)



VIEW OF WHITEHORSE TAKEN FROM HILL

THE AKSALA UNDERGOING REPAIRS AT WHITEHORSE



AWD at Mile 1083

The next part of the trip was a visit to the RCEME at Mile 1083 in the company of Lieutenant T. R. Palfrey, OIC of the vehicle inspection team. This AWD endeavours to provide light repairs to Highway maintenance equipment at Mile 1083 and S/Sergeant Hains from 219 Workshop is in charge.

About fifty miles from our destination, we picked up a French priest burdened with a heavy pack and headed for the RC Mission at Burwash, some twelve miles further than Mile 1083. Although the weather was not too severe, it was certainly cold enough to be unpleasant and not ideal for setting out to navigate some 60 miles of wilderness on foot. We dropped him at Mile 1083 and he continued under his own power toward Burwash. We later picked him up again and deposited him at his destination. During the hour or so we spent at Mile 1083 having supper, he had managed to walk only about a mile and was still at least ten miles from his goal.

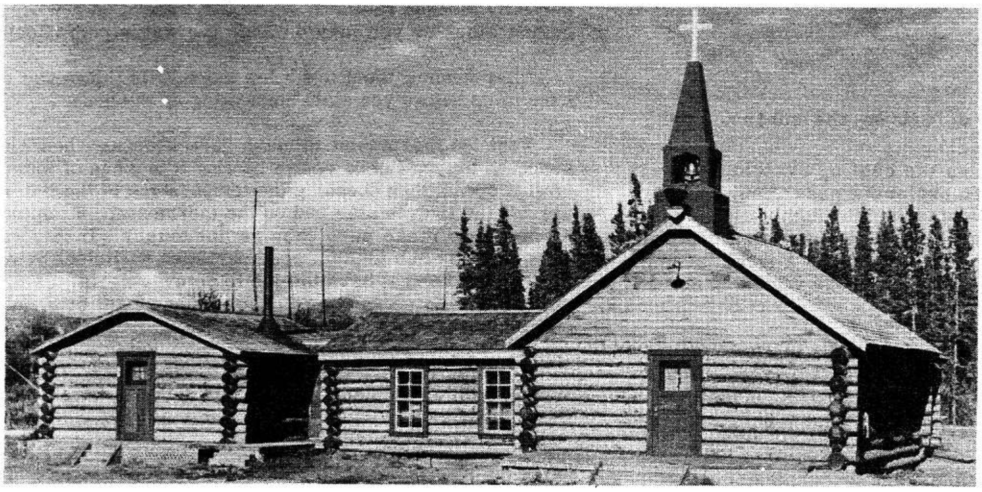
RCEME has a Stake in the North

On our way back to Whitehorse the next day we stopped for dinner at one of the roadside restaurants where Lieutenant Palfrey was served with the largest steak I have ever seen. To get through a steak of that size, a man must either be one of the better men with a knife and fork or have fasted for a couple of days beforehand. Tom Palfrey labored manfully but was forced to give up considerably short of the finish. No doubt his loss on the deal was an unexpected gain for the two hefty dogs that hopefully supervised our meal.

A flight to Snag and Aishihik had been planned for the following day but was unfortunately cancelled, the aircraft having burned out a motor.

The return journey from Whitehorse to Edmonton was via RCAF Sked, and was completed in approximately eight hours including stops at Watson Lake, Fort Nelson and Fort St. John.

So concluded a most interesting and educational trip. The circumstances and problems encountered in service life on the Northwest Highway System are unique and must be seen to be appreciated. Generally most personnel and their families seem to enjoy the life and many are loth to leave at the end of their tours of duty. A tour on the highway appears to be valuable experience of a type obtainable nowhere else and might well be considered an essential part of our training.



BURWASH MISSION CHURCH AT MILE 1093

SPRING TONIC FOR VEHICLES

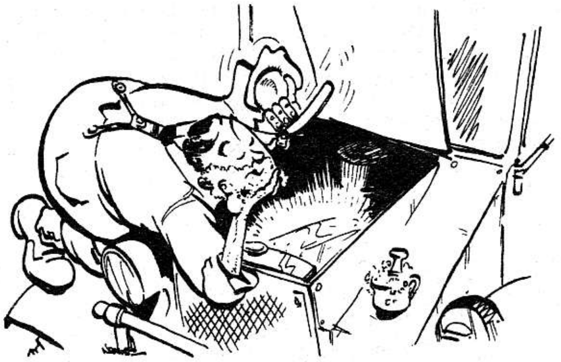
BY WO II G. CHARLES DME

Webster says that 'tonic' means 'tending to strengthen and invigorate''. Well, to accomplish this when the thermometer is up around the 90° mark there's nothing like a drop of clear cool liquid, lots of fresh air, and an easy pace. There's two ways to apply this recipe. You can apply it to your own little self and let it go at that -- or you can include your equipment in on the deal. It's generally agreed that the second choice pays off best.

There are plenty of things you can do to keep the cooling system cooling, the lubricating system lubricating, and the crankcase ventilation system ventilating. All it takes is a little additional effort and you won't have to worry about scorching the pans off your vehicle when the heat is on.

Spring Cleaning

So let's start off with a good spring cleaning, and while we're at it let's put a special effort on the engine. The poor thing works hard and will get warm enough without being bundled up in layers of dirt and grease.



"....a special effort on the engine...."

Next, we'll start on the cooling system -- a very important though often neglected part of our vehicle's anatomy which will have to be thoroughly cleaned both inside and out. We may point out here that dirty and neglected cooling systems account in a large measure for loss of efficiency and the failure of a vehicle to function at its best.

This is further aggravated by the fact that vehicles are being built with higher compression engines making more efficient heat transfer necessary. Compression heat of a high-compression engine must be transferred promptly to the coolant, otherwise the purpose of higher compression will be defeated by premature ignition. To make matters worse, streamlining has restricted the size of radiators by making them narrower and to compensate for this the water passages are made smaller in order to increase the radiating surface. This has increased the efficiency of the radiator but it should be evident, even to the (CENSORED) in the field that the smaller passages are more easily clogged than the larger ones formerly used.

Remove Rust and Corrosion

Most of the grime in a cooling system is rust and corrosion which is mixed together with scale and minerals deposited from water and miscellaneous bits and pieces of rubber and fibre from gaskets and hose connections. All this is bound together by oil and grease from the waterpump and various leaking gaskets which may be scattered about.

It's easy to see that this combination won't be an easy one to remove. Hot water alone is not enough. First, we'll have to use a cleaning compound which will dissolve the oil and loosen the grime. Then we'll have to reverse flush the radiator, block and heater to get the loosened dirt out. The army supplies a cleaner (Part No. 90147) which admirably takes care of the first part of the job; just follow the directions on the can. Many other cleaners on the market will cause damage to various parts of the radiator so be careful to use only the recommended stuff.

For the second part we'll have to use a flushing gun (Part No. LV6 1MT MT 2670). When using this just be careful you don't overdo it; it's not hard to blow up a partially blocked radiator -- and don't use it on a Willys engine block or you may damage the water pump seal.

After flushing there are a few more little things you'll have to do before you start connecting up the hoses.

Test the thermostat to make sure it opens when it's supposed to; you can do this by heating it in a can of water until it opens, then checking the temperature of the water against the figures stamped on the thermostat. Examine all hoses to make sure they're not mushy. If they're spongy and rotten inside, loose particles will block your radiator and you'll have the job to do over again. Clean the overflow pipe as it has probably had a lot of grime pushed into it.

Now you're ready to connect the hoses and fill the system with water. You'll likely find that you have a few small leaks in your radiator which were plugged with rust and sludge before it was cleaned. These will have to be repaired. Also, check the waterpump and hoses for leaks. Leaks will cause air to be drawn into the system and this will increase the formation of rust.

Finally, clean out the air passages in the radiator, grill, and insect screens with an air hose and there you have it -- our cooling system is all spick and span. But let's not get the idea that cleaning the cooling system and engine will always keep it from overheating. There are many other possible causes. So look for collapsed hoses; leaking cylinder head gaskets; slipping fan belts; check the ignition timing and carburetor adjustments; and make sure the brakes are not dragging.

The next step will be a complete lubrication job. We've been using winter grade oils and greases and these won't work so well in summer weather so let's get rid of them.

Oil flows much easier when it's hot so the first thing to do is to take the vehicle for a drive, long enough to get the engine and gearboxes up to operating temperature. Then drain the gearboxes and flush with solvent. It shouldn't be necessary to flush the crankcase, because H.D. oil is a pretty good cleaner and when it's drained hot it'll bring most of the dirt out with it. When refilling, don't use the wrong oil in the wrong place. Salad oil, hair oil and castor oil have different uses. So use the various grades recommended in your maintenance inserts.

Remove and thoroughly wash bearings in solvent before repacking with new grease and don't pack the wheel hubs full of grease if you don't want to spend the summer relining brakes. Hand pack the bearings till all the spaces in the bearing are full, smear a little on the outsides of the rollers, put a thin coating inside the hub to prevent rust and that should be plenty.

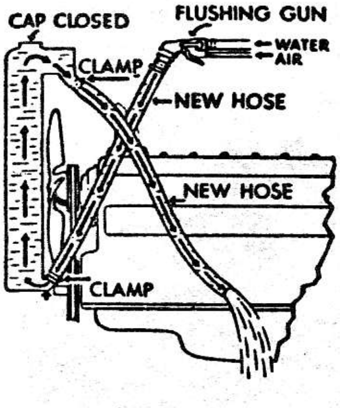
Be sure all old lubricant is forced out of chassis grease fittings and finally clean and refill all oil bath air cleaners. Dirty and clogged breathers and crankcase ventilators contribute to engine overheating.

Sand and dust are like flies; they come out in hot weather and will cause your engine to grow old before its time if they get into the wrong places. Even with your oil bath air filters kept up to snuff some will slip in to do their dirty work unless extra precautions are taken. So make sure all joints in the air intake tubes are tight and the air cleaner gasket is tight and unbroken. The flanged stop on the oil gauge dip stick must be down tight on the tube and the tube itself must be kept tight.

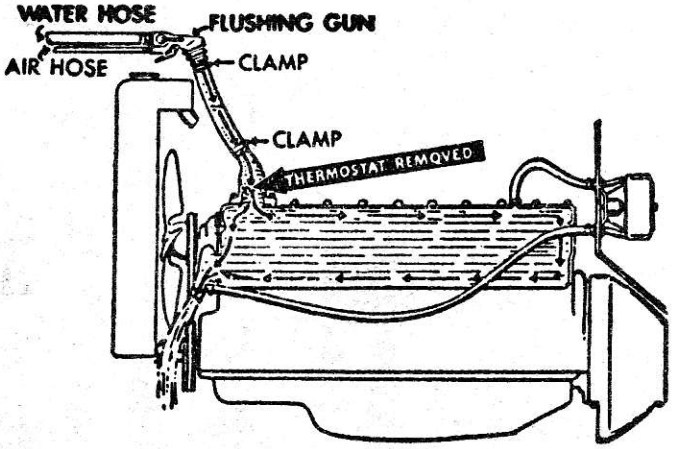
Front and rear crankshaft bearing seals must be oil tight to be dust tight. Check the distributor cap gaskets and rubber sleeves to be sure they are in good condition and the same applies to the spark plug dust caps. Dust will collect moisture, causing short circuiting. Finally make sure that the crankcase ventilating valve is functioning properly and keep a sharp eye on the oil filter -- it'll have to be cleaned and the cartridge replaced oftener.

Well, there's your recipe for a good spring tonic. Don't forget the last and by no means least important part of the job and that is making an entry in the vehicle log book. If you don't, you or someone else may do the whole job over again by mistake.

* * *



Showing pressure flushing of radiator



Showing pressure flushing of engine block

SAM

with apologies to Stan Holloway

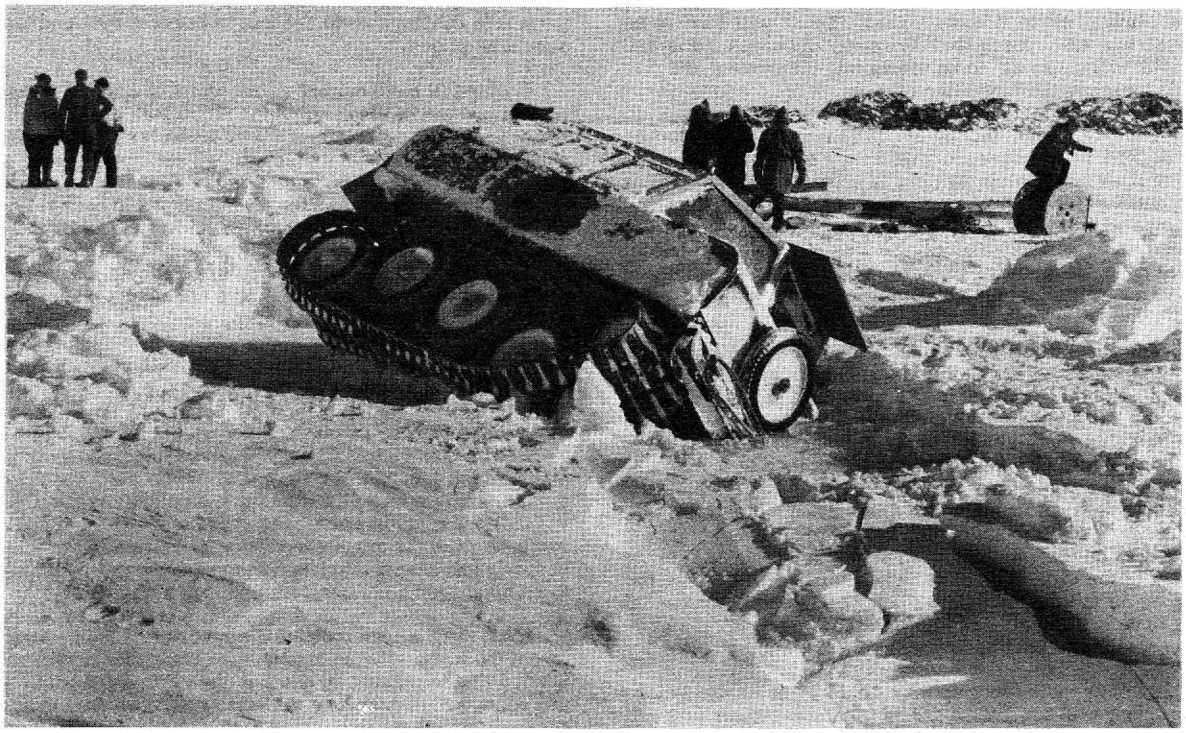
It were over what's called lubrication
That 'im and the "Sarge" ad a split,
'E were bungin' some grease in a nipple
Wi' a gun wot were covered wi' grit.

The Sergeant went purple wi' passion
An' pretty nigh speechless wi' rage,
But 'e managed to call 'im a wotsit
Who'd sprung from obscure parentage.

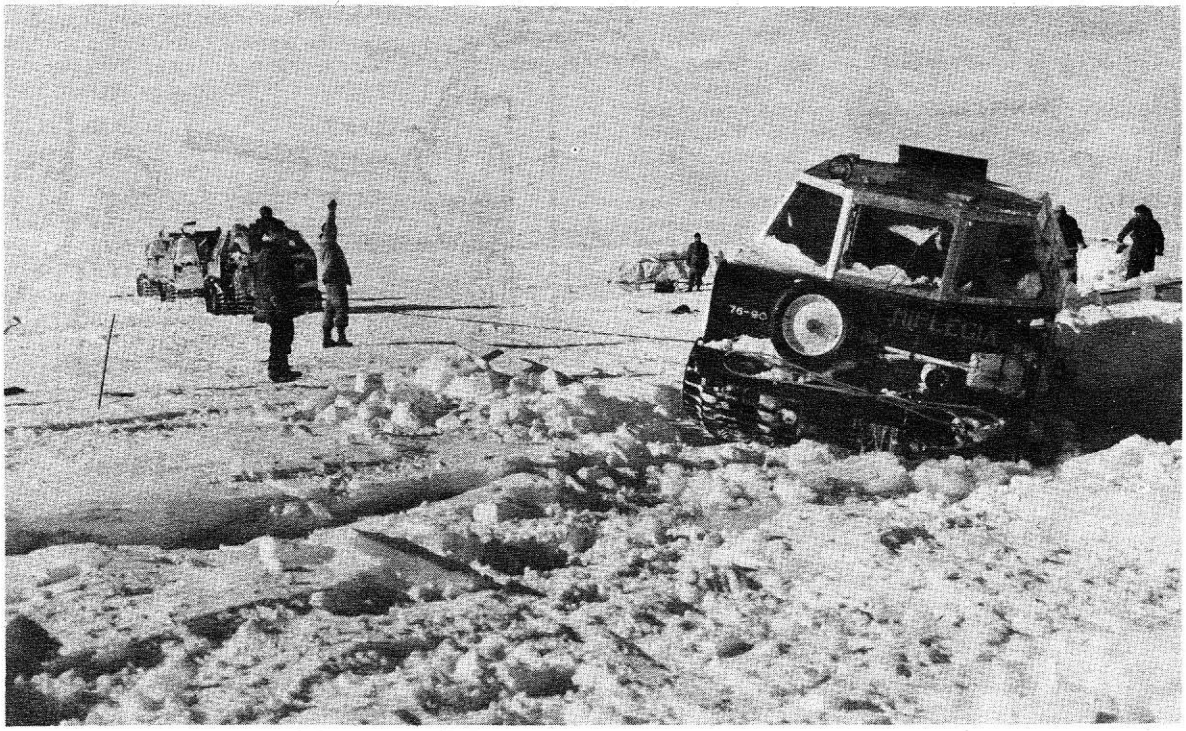
'E says, "If that muck get in bushin'
It'll tear it to Satan's abode —
I've told yer ter clean them utensils
Yer perishin' son of a Toad."

"Further more, while we're on this 'ere subject
And before yer begins with yer tool,
Just see as them nipples is spotless
And clean to let grease through, yer fool."

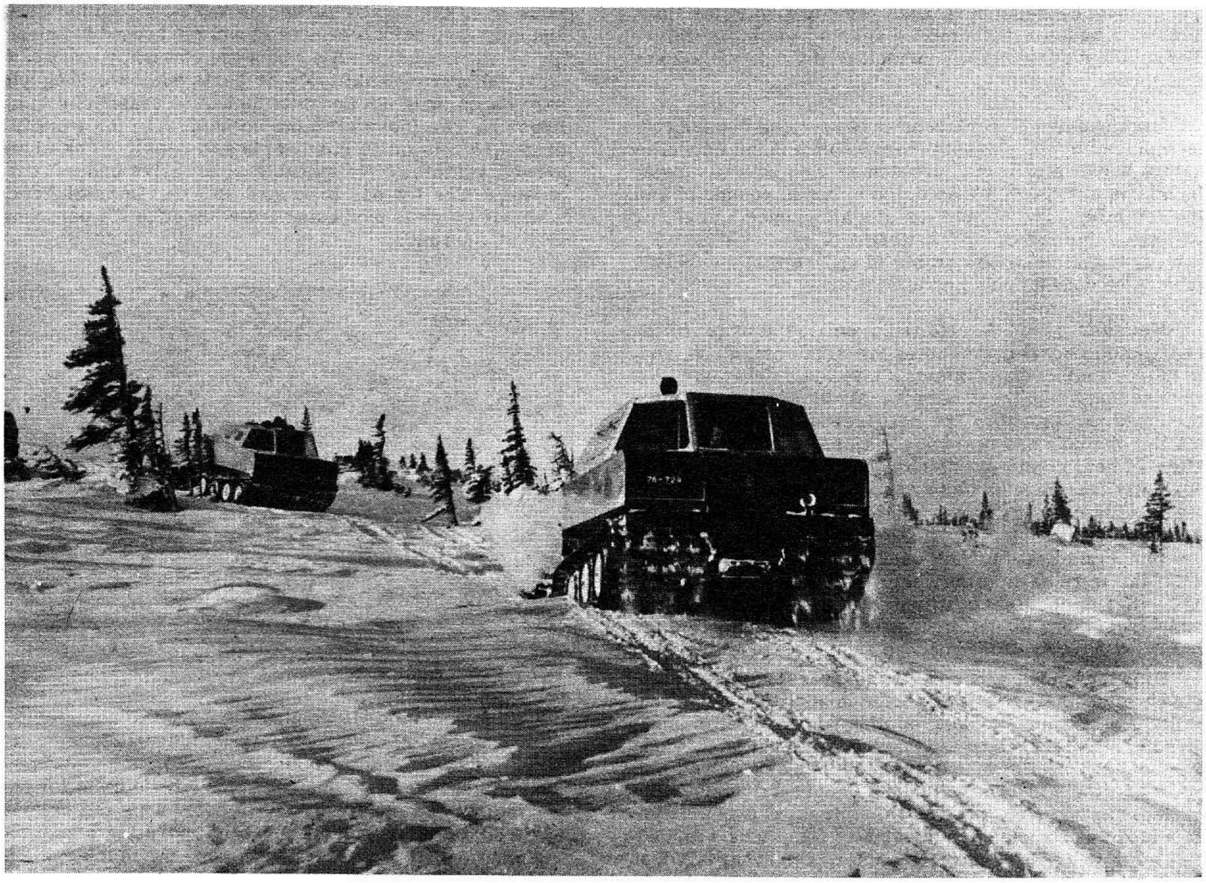
"And just keep the lids on t' containers
While they're sweeping oop rubbish an' all
Cos' grit sticks ter grease like the ivy
Wot clings t'old garden wall."



CLOSEUP OF SNOWMOBILE SHOWING HOW THE WATER HAS RISEN IN THE CRACK AND FROZEN AROUND THE SNOWMOBILE. NOTE HOW RECOVERY CABLE ON FRONT IS INACCESSIBLE



SNOWMOBILE PARTLY OUT OF HOLE. NOTE WATER POURING OUT OF FRONT OF HULL



PENQUIN SNOWMOBILES ON THE BARRENS

MAJOR CUTBILL, AIR SUPPLY OFFICER ON 'MUSK-OX', IS SHOWN IN LEADING VEHICLE

THE AUTHOR AFTER THREE MONTHS ON 'MUSK-OX'

RCEME IN THE ARCTIC

BY MAJOR A.G. SANGSTER ED

Today all eyes are looking toward the poles of the earth. Antarctica, being isolated in the water hemisphere, has a romantic allure which has attracted all countries. The Arctic Islands and the Canadian Arctic mainland, in addition to being a Canadian frontier to defend, represents untold potential of mineral reserve.

Commercial enterprise has not yet risked the required capital to do any extensive development in the Arctic, so it rests upon Government agencies to establish outposts and to develop new types of vehicles for surface travel under extreme conditions of cold and snow. These outposts may be weather stations, airstrips and signal communication nets.

Exercises Polar Bear, Eskimo and Lemming indicated the practicability of mechanized travel in the Arctic and the magnitude of the RCEME commitment involved. Exercise Muskox confirmed the indication of the previous exercises and further proved that even in the severe sub-zero weather and under Arctic wind conditions, mechanics could work in the open without weather protection.

Present concepts of RCEME organization in the field, however, become outdated as soon as the temperature drops below zero and the windchill of the Arctic is encountered.

Backloading and replacement of complete equipments is replaced by 'on the spot' repairs of a more extensive nature because of L of C problems. The cost of moving freight is assessed, not in dollars, but in pounds of fuel per ton mile. The economics of maintenance and repair become complicated by the weight of spare assemblies and parts that must be carried to ensure that any repair job can be done quickly and effectively.

Because of the Arctic wind-chill, the urgency for repair and recovery assumes tremendous importance. In more temperate climates, a 24 hour delay may not have serious results. But in the Arctic winter, a vehicle breaking through thin ice will freeze into the ice in a matter of hours and become a major recovery operation after 24 hours. Simple mechanical repairs which would normally take an hour or two become an all day job when the mechanic has to fight a hostile nature while working. Any delay allows the equipment to saturate to an extremely low temperature and further reduces efficiency by slowing down the work. Often the component under repair must be heated to counteract differential contraction, break away frozen condensation and prevent frost burn to the fingers and hands of the mechanic.

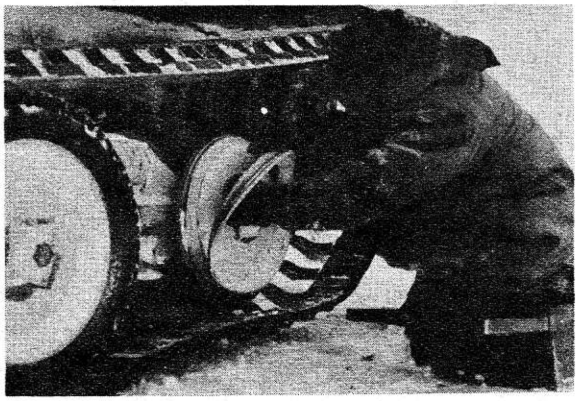
Blowing snow, a result of the ever-present Arctic winds, is another deterring factor in addition to the wind chill. A mechanic, working outside without shelter must turn his back to the wind which means he must be to windward of his job. Blown snow will therefore be driven into his work; tools and parts laid on the ground are quickly buried. In one case on Exercise Muskox, a repair job on a sled was completed in 20 minutes but it took a further half hour to recover three spanners less than six feet away.

This brings up the question of shelters. There are several types which may be used to advantage when repairing external components of vehicles and other equipment. A snow wall can be built to windward by non-technical crew members in a very short time. This acts as a windbreak and can be erected in a strong wind but obviously cannot be heated. A windbreak may be improvised from a tarp or parachute anchored to vehicles located to windward. This can be a frustrating process when manhandling a large piece of cloth in a strong wind. This cannot be heated either.

A demountable shelter tent large enough to cover a vehicle or other equipment would permit heating of work space. No such shelter has yet been properly tested under Arctic operating conditions. The main problem in this case is again, its erection in a strong wind.

First consideration in the use of shelter is of course, the time required for the job in hand. If it's to take only a few minutes, even five minutes spent putting up a shelter would probably be time wasted. If the job is going to take perhaps an hour, the consideration is, how much time can be saved by erecting a shelter. Then again there is the question of whether the job can be done at all without adequate shelter and if not, the type of shelter best suited, again having regard to the time required for erection.

The functioning of RCEME in the Arctic gives the clothing designer something to think about too. A mechanic at work requires insulation in different places than the average northern traveller. He is active mainly with his hands, arms and shoulders with the result that his upper clothing is too heavy. At the same time, his back and legs have the cold windchill driven in so that to remain comfortable he is continually putting on and taking off his parka and must stop work occasionally and run around to balance his blood circulation. His hands are constantly exposed to frost-burn from cold tools or parts when working with bare hands; with Arctic mitts he has no sensitivity in his fingers. The loose clothing so desirable for windchill protection, is quite unsuitable for repair work in and around vehicles. No suitable alternative has yet been proven. The UK has produced an experimental Arctic coverall which is now being tested by RCEME personnel at Fort Churchill.



SGT VIC SNIDER CHANGING A BOGIE WHEEL AT -45 F. WITH 15 MPH WIND

Maintenance of equipment in the Arctic calls for new techniques and careful study to determine the priority involved as determined by Arctic operating conditions and experience. Much has been done but much remains to be done in this field.

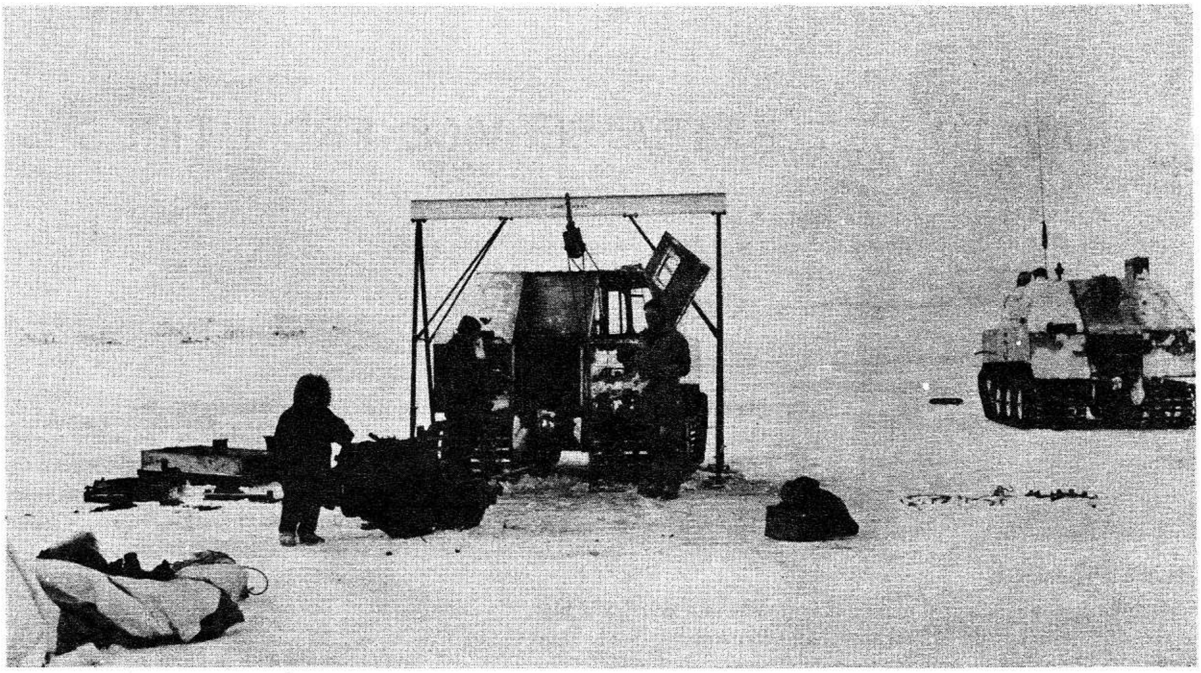
Tools and equipment introduce another problem. Bare metal tools chill rapidly at sub-zero temperatures and in turn chill the hands even through heavy mitts. Normal spanners, screw drivers and other small tools are awkward to handle in heavy mitts and are too cold for bare hands.

Heaters tend to become unreliable at temperatures below - 40° F, when the vapour pressure of gasoline drops to a point where ignition systems used on most heaters become erratic in operation.

These, in general, constitute some of the problems of RCEME in the Arctic. As study progresses others will undoubtedly assume more importance and detail by detail these will have to be beaten if RCEME is to continue to keep the army mobile and efficient. RCEME will meet this challenge but it must be by the elements of the Corps -- Active Force, Reserve Force and Supplementary Reserve -- all working together.

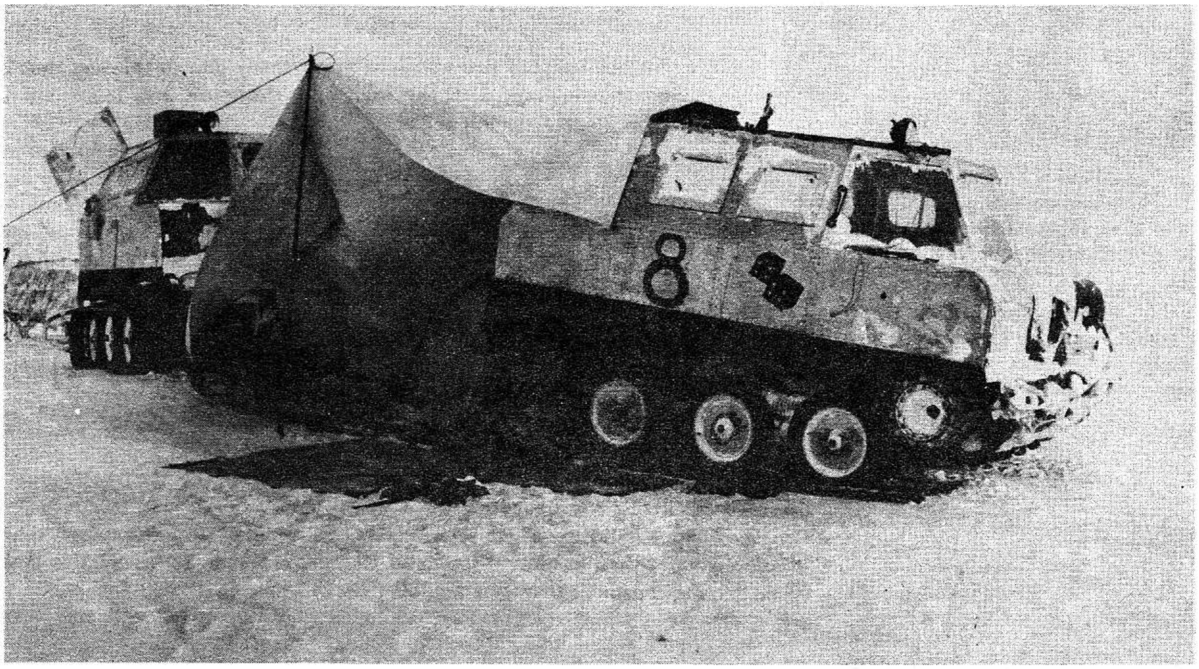
Many personnel will be required for this work, as the solutions to the various problems will have to be conceived, developed, and tested -- and in all probability improved -- in prototype under actual conditions. Personnel requirements can only be met in three ways. First there must be active force soldiers willing to accept short term Arctic postings for RCEME research work. Secondly, reserve force men should be found to volunteer for a short Arctic posting with the active force. Lastly, supplementary reserve men must be prepared to come into the reserve force or accept a temporary posting to the active force.

The big question is not: 'Can RCEME beat the Arctic?' it is, 'How soon can RCEME find solutions to all the problems of maintenance in extreme cold?'



CHANGING ENGINES ON ARCTIC ICE AT CAMBRIDGE BAY AT -35 F. WITH 10 MPH

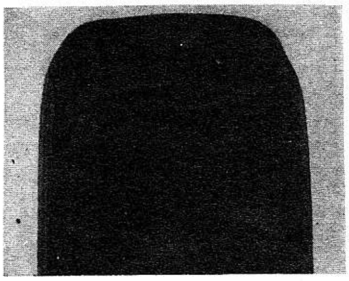
DEMOUNTABLE GANTRY WAS DESIGNED AND BUILT BY DME FOR THE EXERCISE AND FLOWN IN WITH REPLACEMENT ENGINE. MADE FROM LIGHT ALLOY AND BOLTED TOGETHER IT COULD BE ASSEMBLED OR KNOCKED DOWN BY TWO MEN IN A FEW MINUTESS



IMPROVISED SHELTER AT CORONATION GULF

SGT VIC SNIDER REPAIRING A SUSPENSION UNIT AT -20 F. WITH 20 MPH WIND

HOW TO GET EXTRA SERVICE FROM TIRES



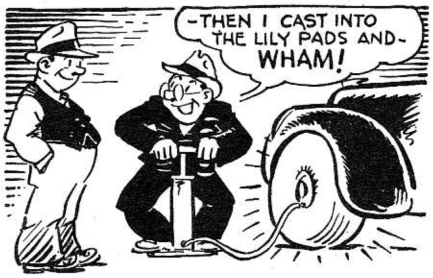
WHEN TIRES SQUEAL . . .

It means they're sliding against the direction of the tread grooves . . . rubbing away miles of service. Why? Poor driving habits is the answer—yet drivers' habits are but one of the many factors which directly affect the rate of wear in tires. Other factors are: underinflation, overinflation, heat, speed, road surfaces, topography, and mechanical irregularities.

UNDERINFLATION

Underinflation causes a tire to flex abnormally and develop a high degree of internal heat. Abnormal deflection induces heat. Heat softens tread rubber, causes it to wear off more rapidly.

Too, underinflation causes the tire to roll on the tread shoulders. This drag, or "wipe," back and forth on the road surfaces, results in rapid, spotty shoulder wear.



-THEN I CAST INTO THE LILY PADS AND- WHAM!

OVERINFLATION

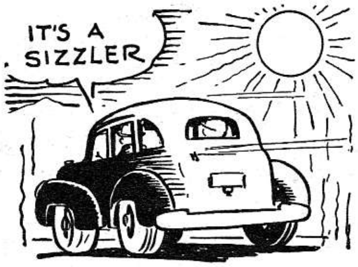
When a tire is overinflated it has a tendency to bounce or "chatter" on the road. At high speeds this bouncing turns into a slippage which wears off the tread in the center much more rapidly than when the tire is properly inflated.

An overinflated tire will spin more easily due to the fact that it has less contact with the road and, therefore, has less traction than a properly inflated tire.

HEAT

Heat that affects a tire's rate of wear is for the most part generated inside the tire due to extreme flexing.

However, atmospheric temperatures also have an effect on the rate of wear. In hot weather the internally generated heat does not dissipate as readily as it would in cold weather. The heat radiated from a hot road surface into the tire as it rolls along will also cause the tread rubber to become softened and wear down more rapidly than under cooler conditions.



MUST BE ONE OF THEM RACING DRIVERS

SPEED

Speed has a direct effect upon tire tread wear. This is especially true on long, sustained high speed runs where the tire gets exceedingly hot. The rate of wear becomes greater than at normal speeds of 40 or 50 miles per hour, just as high speed driving consumes more gas and oil than at lower or normal speeds. The tread wear of a tire driven at 70 miles an hour will be almost twice as rapid as it would be were the same tire driven at 45 miles an hour.

FAST OR SLOW ?

ROAD SURFACES

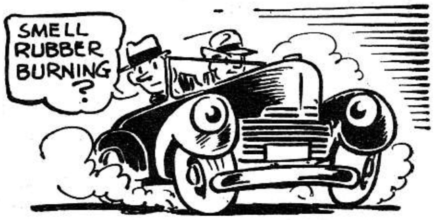
Road surfaces have a decided bearing on tire wear in that a road that has a rough surface will wear a tire down due to abrasion, much more rapidly than a road with a very smooth surface. However, there is a safety factor in a road that has an abrasive surface in that you are able to stop much more quickly on this type of road than you could on one with a smoother surface.

DRIVERS' HABITS

Some drivers wear out tires in 10,000 miles or less, others in 20,000 miles, some get 30,000 miles, and others greater average mileages. This is largely due to a driver's habits and operating conditions. "Jackrabbit" starts, sudden stops, excessive use of brakes, high speeds on curves and frequent stops and starts in traffic all tend to wear away tread rubber and rob the tire of *miles of life!*

ROUGH, HILLY TERRAIN

The topography of the country over which a car is normally driven has a great deal to do with the rate of tread wear. For instance, a car driven in a hilly or rolling country, over winding roads, will wear down the tread of a tire much more rapidly than in sections of the country where the roads are straight with very few hills and curves.


SMELL RUBBER BURNING?

TOE-IN OR TOE-OUT

MECHANICAL TROUBLES

If you want to wear out a pair of tires rapidly simply have your front wheels toed-out or toed-in beyond the proper specifications . . . and you will be able to accomplish this result very quickly.

Mechanical irregularities such as misalignment of either front or rear wheels, sprung axles, sprung axle housings, worn bushings, bent wheels, grabbing brakes, unbalance, and many other mechanical factors contribute to the uneven wear of tires.

GRABBING BRAKES

THE RUBBER MANUFACTURERS ASSOCIATION, NEW YORK

SO YOU WANT TO PASS

BY LT COL W.G. HAMILTON MBE

The Canadian Army has an extensive school system which covers all phases of a soldier's career from the day he joins until he retires. The career program of a recruit starts with his basic training at a corps school. By successive courses and tours of duty he may climb to highest non-commissioned rank and may be selected for officer training. Besides, more than one half the men in the Canadian Army are specialists and therefore require training and courses in order to become proficient in their trades.

"..the day he joins..."

On being commissioned a soldier does not fall into that exalted category in which there is no requirement for further study. Qualification, promotion, entrance to Staff College and Military College of Science examinations are requirements in the furtherance of an officer's career.

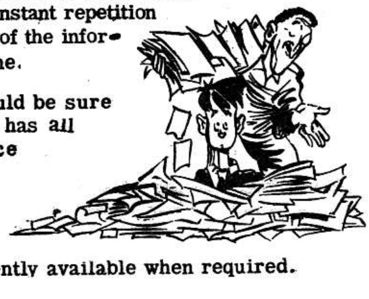
Now things being as they are, it might be of benefit to give some helpful hints on the art of studying.

A fundamental principle underlying any serious study must be a sincere desire to learn. One must be convinced that the object, immediate or long term, is attainable and worth the time and energy to be expended. From this will come the ambition to study.

Concentrate on Poorest Subjects

Study must be organized. This is particularly important when there are many subjects and free time is limited. Organize a study time-table and do your best to adhere to it. One should consider the program as a whole and determine roughly what percentage of available time should be given to each subject. You will find that you may possess a natural ability to master some subjects, while others may appear dull and difficult. If this is the case, concentrate on the latter as these are probably the ones in which you will be weakest.

Don't try to remember everything. If you could you wouldn't need the course. Learn to pick up the essentials and concentrate on them. In committing to memory the details of organization charts, etc., a blackboard is a quick easy aid in testing your memory. (A fellow-student, or wife, should be present to ensure that you don't cheat.) Constant repetition will ensure retention of the information for a long time.



The student should be sure at the outset that he has all necessary reference material and that precis and study papers are complete and arranged so as to be conveniently available when required.

Have good light and be comfortable (but not too!).

Study terms of reference carefully to get a clear idea of the subject of the course.

Keep up with the work from day to day.

Mark Important Passages

In the course of reading precis or pamphlets, you should underline all important passages for ready reference in reviewing when it will not be possible to re-read the entire papers or book. These passages can also be flagged if desired. Make notes if you cannot remember from reading, and then study the notes.

Stop before you get tired, and if you find you cannot sleep after you study, read a "Who-done-it".

Don't be afraid to ask for help when you are stuck -- everybody is 'for' you.

When studying a military subject use your own experience, but don't assume, because you did something a certain way in the war, that it was necessarily the only way or even the best.

If the general principles involved in any subject are thoroughly learned in the first instance, the final review need only include a rapid check of the major points which can be used as a basis for answering an examination paper.

It's An Art

There comes a time in every student's life when his knowledge of a subject is put to test by an examination. Even the mention of the word has caused the great to tremble. But it is not such an ordeal if approached in the right way. There is an art to writing examinations.

It is not always the student with the greatest knowledge who attains the highest marks. Generally the best results are obtained by a student who is confident and who can set down his answers in clear, precise English. Even to know the mannerisms of the examiner may be beneficial because the answers can be written in his style. (This must not be confused with "apple-polishing" which will not be discussed here.) Anyway, as examinations are still inevitable, here are some hints to help you pass.

Get a good sleep the night before the examination.

Have everything you need to work with -- pen, pencil, etc., unless you have been told that materials will be supplied.

Understand the Question

Read the paper carefully and make sure you understand the questions and know what is wanted by the examiner.

Make sure you answer the question as it is, not as you think it is.

Mark the questions in the order in which you can best answer them.

For a rough guide only, allot to each question the time which you think you can allow for it.

Remember that some questions are worth more than others, and act accordingly.

Do not answer more than the necessary number of questions. Answer all compulsory questions and the right number of optional ones. From the compulsory group select those that you can answer best and do them first.

Write Answer Clearly

Write your answer clearly and with facts. Leave a space at the end for elaboration later if you have time.

Pay particular attention to those which are a choice -- true or false -- as you may know the correct answer but mark the wrong space.

Don't get panicky if a paper seems difficult. Remember that you have been studying for this, and re-reading the questions carefully will disclose some clues as to how to apply what you have learned.

Do not "waffle". Windy irrelevance antagonizes examiners. "Quality, not quantity" is their cry. On the other hand, don't be so brief that relevant explanations and necessary substantiating data are omitted.

Take Time to Revise

Divide your time so that you will have at least twenty minutes for revision and correction at the conclusion of the examination.

Go back and read your answers, correct mistakes in spelling, grammar and punctuation and amplify where necessary.

Try to write legibly. If the examiner cannot read your answer you will not receive marks for it. Remember how you beef when you have to decipher bad writing.

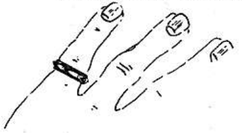
Do not write on both sides of the paper at once, **AND THE CHANCES ARE -- YOU CAN PASS!!**

"That may be all true", grumbled Captain Didnpass, "but, in my opinion, the first requirement for successful completion of a pre-staff course is the ability to read between the lines of a book that is not available".

* * *

THE CRAFTSMAN'S RING

(OVERLAPPING LAUREL LEAVES AS IN RCEME BADGE)

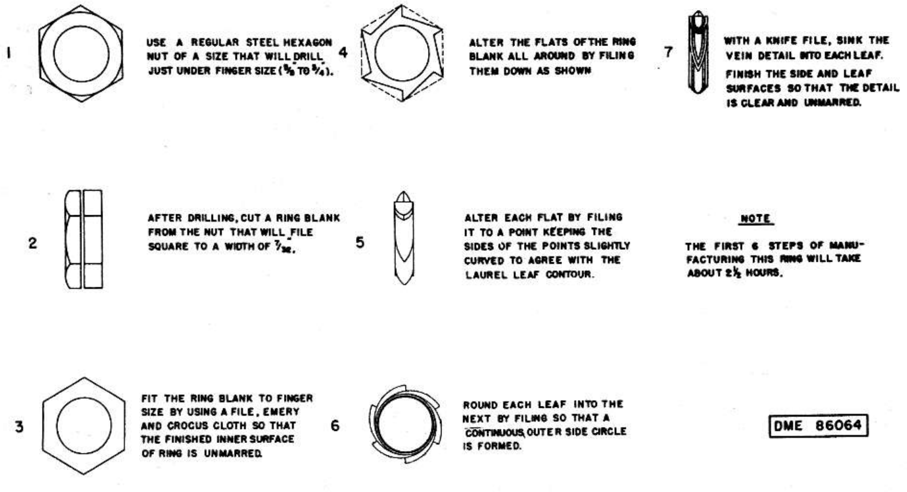


WORN ON THE SMALL FINGER OF THE LEFT HAND.

MAY ONLY BE WORN BY ITS MAKER AS A SYMBOL OF HIS CRAFTSMANSHIP.

THE MATERIAL OF THE RING IS A COMMON STEEL HEXAGON NUT, THEREBY RECOGNIZING ONE OF THE MOST IMPORTANT DEVICES OF TECHNICAL PROGRESS.

—MANUFACTURING STEPS—



1 USE A REGULAR STEEL HEXAGON NUT OF A SIZE THAT WILL DRILL JUST UNDER FINGER SIZE ($\frac{5}{8}$" TO $\frac{3}{4}$").

2 AFTER DRILLING, CUT A RING BLANK FROM THE NUT THAT WILL FILE SQUARE TO A WIDTH OF $\frac{7}{32}$".

3 FIT THE RING BLANK TO FINGER SIZE BY USING A FILE, EMERY AND CROCUS CLOTH SO THAT THE FINISHED INNER SURFACE OF RING IS UNMARRED.

4 ALTER THE FLATS OF THE RING BLANK ALL AROUND BY FILING THEM DOWN AS SHOWN

5 ALTER EACH FLAT BY FILING IT TO A POINT KEEPING THE SIDES OF THE POINTS SLIGHTLY CURVED TO AGREE WITH THE LAUREL LEAF CONTOUR.

6 ROUND EACH LEAF INTO THE NEXT BY FILING SO THAT A CONTINUOUS OUTER SIDE CIRCLE IS FORMED.

7 WITH A KNIFE FILE, SINK THE VEIN DETAIL INTO EACH LEAF.

FINISH THE SIDE AND LEAF SURFACES SO THAT THE DETAIL IS CLEAR AND UNMARRED.

NOTE

THE FIRST 6 STEPS OF MANUFACTURING THIS RING WILL TAKE ABOUT 2½ HOURS.

DME 86064

You know what they say about a sow's ear? Well, it isn't so about a common steel hex nut. It can be made into a very mannish, eye-appealing ring. Get a copy of drawing DME 86064 and see for yourself.

If all the drawings are gone, write the Directorate of Mechanical Engineering at AHQ and your requirements will be provided.

There is something else about the craftsman's ring that isn't visible: it represents an ability at craftsmanship that the owner can be proud of, for only you may wear the ring you make.

ALL WORK AND NO PLAY MAKES ...... ?

205 BASE WKSP RCEME WINS CAMP BORDEN SMALL-BORE RIFLE CHAMPIONSHIP

The Final Shoot of the Camp Borden Inter-Unit .22 inch Rifle Competition was fired 9 Feb 49.

RCS of I and 205 Base Wksp RCEME, the two leading teams, shot it out on the RCS of I Indoor Range for the championship. Col D.K. Todd, DSO, officiated, and was accompanied by Lt-Col J.M. Houghton, OBE, OIC RCS of I, who donated a Cup for the highest individual score, and Spoons for each member of the winning team.

The competition between these teams was very close and keen. So evenly were these two teams matched, that Lady Luck, smiling upon RCEME, was the deciding factor. Right up to the firing of the final target the issue remained in doubt.

The highest individual honour goes to WO I Bourne of the Foreign Material Section, a member of the RCS of I team, who shot an average of 99.125 points throughout the competition. Runners-up were Sgt Rowell, RCS of I, with 99% and Cfn Moore, RCEME, with 98.9% average.

The Team from 205 Base Wksp was composed of:-

SA-111220	Cfn	Moore, S.R.
SB-147673	Cfn	Burnet, R.L.
SC-64514	Cfn	Finnigan, M.
SB-26493	L/Cpl	Creagen, H.E.

Team Standings (possible 3200 points)

	Team	Points
RCEME	A	3140
RCS of I	A	3131
RCS of I	B	3117
RCAC School	A	3083
RCASC School	A	3071
RCEME	B	3047
RCASC School	B	3027
RCAC School	B	2967
RCAMC School	A	2935
RCAMC School	B	2747
23 Tpt Coy RCASC	A	2560
23 Tpt Coy RCASC	B	2538

Individual High Scores (possible 800 points)

WO I	Bourne	RCS of I	793
Sgt	Rowell	RCS of I	792
Cfn	Moore	RCEME	791
Cfn	Burnet	RCEME	784
Cfn	Finnigan	RCEME	783
L/Cpl	Creagen	RCEME	782
Major	Paquet	RCS of I	782
Cpl	Ross	RCAC School	782
Pte	Todd	RCASC School	779

It is proposed to inaugurate a series of out-door Inter-Unit Shoots, with the intention of sending a strong Camp Rifle Team to the ORA and DCRA Meets. Plans are being drawn up to shoot Wednesday afternoons, starting in May 49.

RCEME WINS CAMP BORDEN BOWLING

RCEME Nuts and Bolts walloped the pins for a 15,783 total over 15 games to take the Garrison Bowling Championship for the 1948-49 season. RCEME was threatened just once in the first night of bowling when RCS of I Strikers came through with a first game total of 1171 and showed signs of pulling away to a commanding lead. RCEME took up the slack in the remaining four games and wound up the first night of rolling 24 pins in front of the Strikers. RCS of I Keglers started the series off with a fair 1006 count but couldn't stay with the pace the two top teams were setting and wound up behind a 377 deficit after the night's rolling. RCASC School Defenders, last year's Garrison Champs, got away on the wrong foot and never changed step all night, the result was a shabby 4568, 558 pins off the pace.

RCEME stretched their 24 point margin into a commanding 490 point lead by the end of ten games, in the second night of bowling. Strikers fell off the beam in the seventh game with a lowly 891 that pulled them down to the Keglers who were busy piling up a healthy 5113 for their second string of 5 games. Defenders were still keeping busy getting untangled and fell way off the leaders' pace with a score of 4763.

Nuts and Bolts, just to show their bowling finesse, and to prove that the first two nights were not accidents, tumbled the timber for 5319 in the last set of five games to finish in front of the second place Strikers by 1011 pins. RCS of I Strikers and Keglers battled for second spot, with the Strikers coming out in front by 289 pins, which is a tight enough fit in any man's league over a 15 game stretch. Defenders picked the unlucky 13th game to bang out the highest team single for the entire series. The game (1254) pulled the Defenders up to within 357 pins of the second place team with two games to go, but too many head pins and corners decided the issue. Their 4961 total over the last five games was by far their best effort of the series, but was not good enough to push any of the other play-off teams in the series.

In winning the championship, RCEME Nuts and Bolts terminated a drive that started with the first night of bowling back in October and carried through a complete schedule of 82 games with only nine defeats chalked up against them. The RCEME bowlers and their averages for the fifteen game finals were: Smith 208; McBride 207; Hulme 202; Hinton 201; Ryder 197 and Hagan 194.

This corner gives a tip of the beret to a team that bowled hard, played like champs and won like champs.

Sgt "Lou" Nodelman
in Camp Borden Citizen

* * *

Corps personnel seem to lean toward the brainy rather than brawny sports judging from the hockey results there. To quote from the Citizen, "The RCEME team were forced to drop out of the hockey schedule due to the shortage of hockey-playing personnel, but this much can be said for the boys who stuck it out for four games, with very little or no practice before the regular schedule started, they were always in the battle until the last whistle halted play."

* * *

INSPECTIONS WITHOUT TEARS

The following conversation was overheard by our reporter between the Officer Commanding the Point Grey Rifles and his new A & T Vehicle Mechanic. This last character is pretty well up on the bit as regards RCEME Inspections and so on, and we thought that the meat of the conversation might well be of interest and assistance.

Major Brown — Good God, Sgt Smith, these RCEME types are descending on us again to inspect our vehicles. Why, it only seems the other day that they were ferreting around here. We didn't do so well either — I seem to recollect. We got a bit of a rocket because our vehicles weren't clean.

Sgt Smith — Yes, sir. I see from this notification that they are due here on the fifteenth. I'll make sure that the equipment is properly cleaned and well set out this time, as I know that you can lose a powerful lot of marks on that score. However, they say that a clean vehicle is a well maintained vehicle, so I suppose we have only ourselves to blame for that unit maintenance grading of 'POOR' that we got.

Major B — And look here, Sgt Smith, here is another of these Caleemies on inspections, just arrived: it seems to be a new issue or something or other. I don't know why the devil they want to make these things so complicated. D'you know anything about it?

Sgt S — Yes, sir, I had a look at it before you came in. That's CALEMEI General H 101, Issue 3, dated 6 Oct 48. It is a revision, in that the condition classifications are a bit different. I might say that the method of scoring has been changed, too, on the new inspection form and they don't bear down quite so heavily on lack of cleanliness. But they sure can stick you for "not reporting faults". Bang goes 25 points if you are caught up on that score. I'll make good and sure that all the drivers are briefed on that, and that our ORL is up to date.

Major B — ORL? Let me see, that's the Outstanding Repair Ledger, isn't it?

Sgt S — That's right, sir. We have to keep that up to date and make sure that the CAFC 2149 — which is called the "request for repair services" now — is sent in to the RCEME Workshop. That takes the place of the old repair indent, you remember, sir.

Major B — You know, Sgt Smith, I don't get much out of this CAFC 2084 Summary of Inspections. What's the difference between Maintenance Grading and Condition Classification anyway?

Sgt S — There's no direct connection between the two, sir. The maintenance grading is supposed to show how well the driver has maintained his vehicle. The score for each vehicle is obtained by making up that sheet I just mentioned. the CAFC 2171 or Routine (120 day) Inspection Report for Wheeled Vehicles. That gives you a figure for each vehicle, and the maintenance grading for each group of vehicles is obtained by averaging these figures as given in paragraph seven of that CALEMEI you spoke of. The condition classification on the other hand shows the actual state of repair of the vehicle as distinct from its state of maintenance. You might have a Class III vehicle, for instance, with a 96 percent "excellent" maintenance grading.

Major B — Ah, yes, I seem to remember that AEME fellow said something about that. But what's the difference between the new condition classifications and the old ones? There seems to be more of them.

Sgt S — That's right, sir, there are five instead of four. Class I is fully serviceable equipment or that which could be made so by the unit. Class II equipments require light repairs by a RCEME workshop, Class III medium repairs by a RCEME workshop, Class IV heavy repairs by a RCEME workshop. Class V equipment is "beyond economical repair" and should have a PCC raised on it by RCEME.

Major B — Yes, I see. In the old days I had to worry about Class II vehicles because I was supposed to be able to have them fixed within the unit, but now on anything which is shown lower than Class I, I guess I should have you put in a CAFC 2149. That right?

Sgt S — Yes, sir. These condition classifications aren't as much help to the OC or the unit as the old ones were, but they are much more informative to RCEME, they tell me, because under the old system a vehicle could be Class III if it simply needed a coat of paint. It enables them to make a more accurate estimate as to their backlogs.

Major B — Well, what is the difference between light, medium and heavy repairs?

Sgt S — I haven't been able to find that laid down anywhere as yet, sir, but I believe that a "light repair" is one that will take less than 25 manhours to carry out, a "medium repair" takes between 25 and 100 manhours, and a "heavy repair" is a base workshop job and will take over 100 manhours.

Major B — Well, well. Good thing I've got you around to tell me these things. So lets face these jokers next Wednesday with an open mind and clean vehicles, eh!

Sgt S — Yes sir, we'll do our best. (Salutes smartly, exits pondering).

— Western Commander

RESERVE FORCE SITREP

Captain Frank Coultish, RCEME A & T officer Central Command, is to be congratulated on his effort in bringing to RCEME Reserve units in the command a feeling of closer co-operation and mutual understanding through the medium of his monthly situation report.

This report, which is by no means as dry as the name would indicate, deals with the recruitment, training and accommodation difficulties that are being experienced by each unit, and gives some very good suggestions and ideas for overcoming them. For instance he reports:

"Six Inf Workshop RCEME in Kingston under Command of Major P. G. Otten was one of the few units who submitted a report for the month of December. This unit is located in the Artillery Park in Kingston and while the accommodation is not the answer to a RCEME OCs prayer, it serves its purpose. Training since September 1948 has included GMT-Telecom-Driving and Recovery exercises.

"Activities during December included a visit to the RCEME School on the 5th of December which consisted of a tour of both the school and the Active Force Workshop, number 207. The annual muster parade was held on the 7th and all ranks attended with the exception of two craftsmen, who were working on that evening. A Christmas party was held on the 21st; it is assumed that this was a success. As a means of inducing recruiting, a 'bingo' party was held during November at which every man on strength brought a friend who was a prospective recruit. This method was reported successful."

Active and Reserve Co-Operation

Co-operation between active and reserve force is encouraged by devoting a section to information about active units and personnel of interest to reserve units. The inclusion of names and narrative in a lighter vein makes his report very readable.

Here is an example of what we consider real co-operation. "The RCOC -- RCEME officers' mess in Toronto has had what dowagers refer to as a 'face-lifting'. This was successfully carried out with the assistance of the Active Force. A vote of thanks is extended to No. 5 AOD, RCOC; No. 2 Works Coy RCE and No. 206 Workshop RCEME. This 'new look' has converted the mess into a home to be proud of and all members are only too eager to show it off to visiting officers. The mess is 'open house' every Saturday night from the 8th January on and it is hoped that all officers, ex-officers and their ladies will take advantage of visiting the mess when they are in Toronto."

Rigours and Hardships

A & T staff will be introduced to the "rigours and hardships of soldiering in sub-zero temperatures" during a winter training course at Petawawa, Captain Coultish reports. The A & T personnel so trained will conduct a short winter training course for the personnel of the Reserve Force. "But", adds he reassuringly, "This course will not subject the Reserve personnel to undue hardships in that the most of the periods to be covered consist of lectures".

By the time of his second Sitrep (1 February) Captain Coultish had begun to lose his enthusiasm and is "praying faithfully for nice warm shiny weather"; no rigours and hardships for him -- if his prayers are answered!

The report shows that some units are much more fortunately situated than others. The 25 Med Wksp in Sudbury is a good example of the "haves" judging from the report of Major Forster the OC who says, in part: "The main deficiencies are the lack of a janitor and the presence of a highly inefficient heating system".

One of the principal difficulties in administering a reserve unit is to organize an interesting training program interspersed with good social functions. Reserve units should find this monthly report of great assistance in this respect.

* * *

RCEME PROFICIENCY COMPETITION

The general plan for this year's RCEME proficiency competition has been decided upon. As a result of very constructive comments from Commands on the engine changing competition held in '48 -- a successful experiment, by the way -- the contest next autumn will be five-fold, with eight-man teams taking part.

Last year's competition, although receiving favorable comment, was thought by many to be too long a job to sustain spectator interest and that jobs requiring less time but more skill should be chosen. This year, therefore, the tests will be usual second echelon work on standard equipments, such as the 25 pr guns and No. 19 sets.

Although the details of the jobs will not be revealed, the following phases will comprise the competition. Vehicle mechs will vie with each other in fault finding and recovery; one vehicle mech up to group 3 for the first and two vehicle mechs up to group 3 for the second.

Armament fitters (2) up to group 3 will be required to do certain jobs on the 25 pr gun. One tels mech up to group 3 from each Command will try to beat the other fellow on the well known 19 set. One armourer up to group 3 will do his stuff on the rifle No. 4, Mk I and one instrument mech in the same grades grouping will work on some familiar instrument, such as binoculars.

This all adds up to a total of eight men to each team to represent a Command and AHQ; and as many reserve force teams as care to enter. The shield is already in existence and it is expected that the Corps Association through their prize committee will provide individual prizes.

The contest finals will likely be held in conjunction with the annual Association meeting at the RCEME School in October '49.

* * *

A tipsy old soldier entered the street car and spied a Padre sitting quietly watching the scenery pass by. Being in a quarrelsome mood and wishing to start an argument he roared out: "I ain't going to heaven -- there is no heaven." There was no answer. So he shouted again. "There's no heaven -- I ain't going to heaven."

The Padre looked at him and replied quietly: "Well, go to hell then, but be quiet about it."

-- Western Commander

A RCEME 'TYPE' ON SIGLOO
OR
WAS YOU THERE, FRANKIE?

By S/Sgt O. Howard

Pending the post-winter arrival from the Churchill Area of fat files wrapped in caribou skin, and sundry personnel similarly wrapped, an advance report on our winter trial might be appropriate. The writer realizes that this may possibly constitute a breach of security regulations paralleled only by leaving the shopping list behind on your desk. (It is requested that the dungeon be steam heated, please.)

Our first introduction to a cold winter occurred enroute from Winnipeg to Churchill by aircraft. The acme in passenger discomfort was cleverly achieved by an ingenious heating arrangement which concentrated all heat within two inches of the roof. We later learned that all northern buildings, including our trailer sled, were heated on the same principle. This condition could be remedied by a device known as a fan, which apparently isn't known so far north.

Before proceeding on the trail, a rigorous softening-up process was undertaken. This consisted of consuming vast quantities of steak, ice cream and an adulterated water, known in Manitoba as "beer". In return for being allowed to attend the convention, each person was expected to spend a couple of nights in the open but this was mitigated by heated tents and practically all the comforts of home.

After our trailer was fully equipped and ready for the trail we encountered one of the major problems of the north - transportation. Furious 'liaisoning' resulted in a number of army promises suitable for framing and the offer of a dog team. Eventually we located what must be the only tractor in the Canadian Army and hooked on behind a sled loaded with onions, potatoes and gasoline.

The pace of the tractor was such that we were able to stroll alongside the tractor train. We had to admire the cool and unhurried manner in which the RCASC delivered the frozen food. A number of US Army wheeled vehicles appeared to pass us on the trail but we disregarded this obvious hallucination. We have since been assured that the use of wheeled vehicles is impossible.

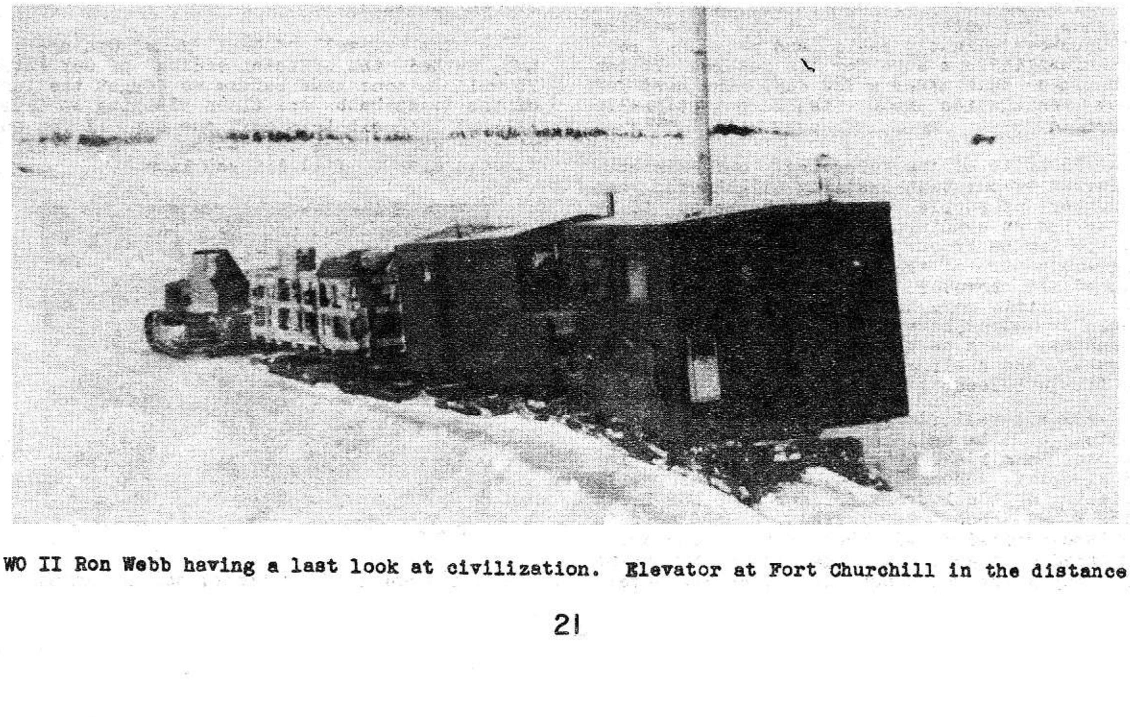
The urgent need for RCEME services made itself felt immediately on our arrival at the Signals camp. We were handed saws and given a wide choice of trees to work on. However, we managed to repay this work-out as the writer was appointed cook for the following day.

A few days after our arrival we proceeded to insidiously worm our way into the confidence of the Signals party by performing the required technical services at any hour, day or night. Sixteen hours over a hot soldering iron was not unusual and we are sure that the cool evenings were the only factor in preventing a prison pallor.

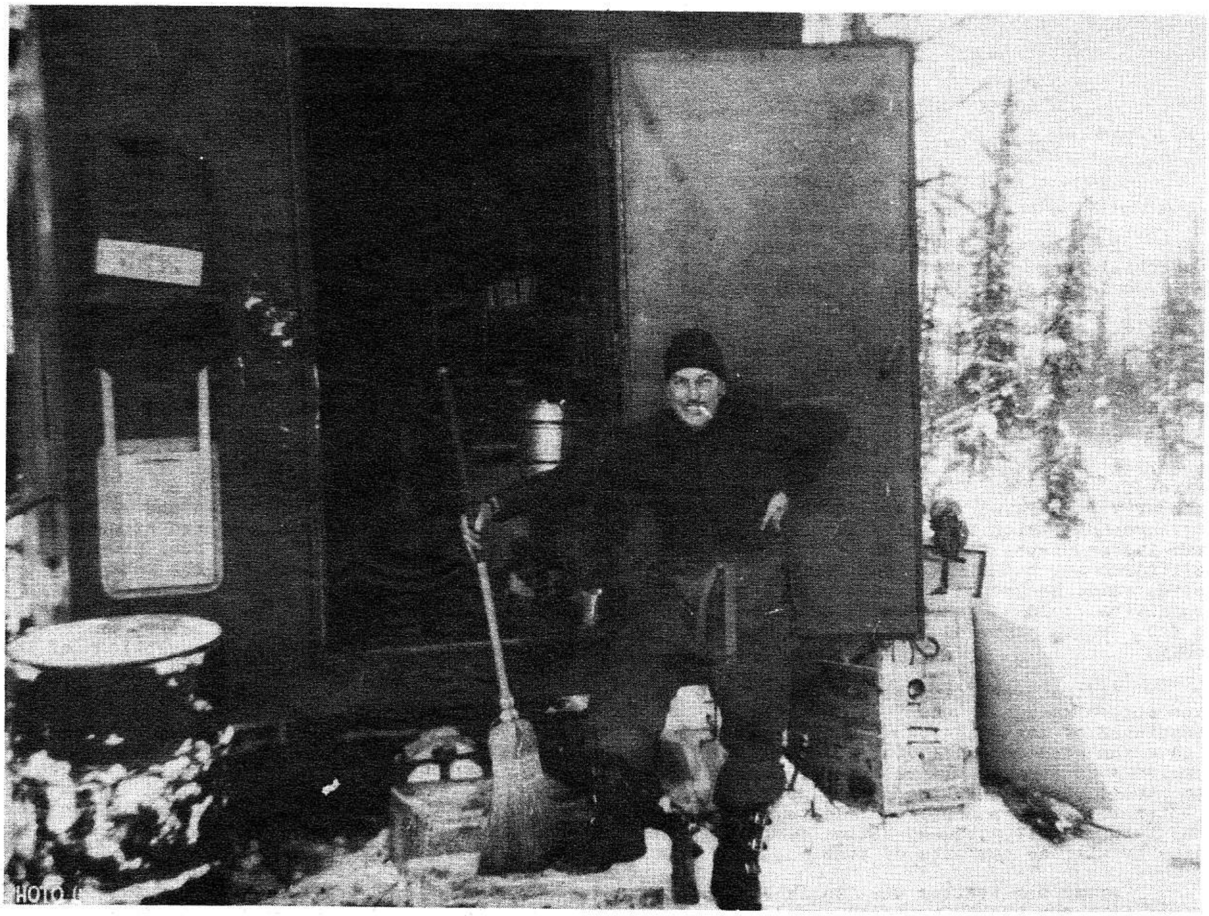
Our party (WO II Ron Webb of 23 Composite Brigade Group Workshop, Petawawa and myself) had been nurtured in the steam-heated atmosphere of the Ottawa Valley. When the fuel problem made it necessary to choose between the tent and two small fires or the trailer and one big fire we voted for the latter. Although the benches were harder than a bill collector's heart, we managed to sleep comfortably with the exception of the first few nights when we felt the urge to scoop out the benches to accommodate the lumpier portions of our anatomy.

By reciprocal agreement we took turns struggling out of the sleeping bags and lighting the fire. This heroic act called for a high degree of muscular co-ordination difficult to achieve at below zero temperatures when clad only in a thin layer of skin. After our party became self-sufficient, the unfortunate fire-lighter also prepared breakfast; a hot cup of coffee before crawling out was appreciated.

This devilish device termed a quick-release sleeping bag deserves, I think, an honourable mention. When set, the quick release mechanism invariably came undone at a chilly three in the morning, which necessitated a refastening process of nightmarish proportions. The three regulation sizes of too short, too long and ohmygodlookatthis also applied equally well to



WO II Ron Webb having a last look at civilization. Elevator at Fort Churchill in the distance.



The author looking very proud of his housecleaning.

the sleeping bags but this was more than compensated for by their excellent warmth.

Although we contemplated soaking the wood in water to make it last longer, the fuel problem ran a poor second to the water supply. For our self-sufficiency program it was necessary to melt snow for water. This put the dishwashing on a once-over-lightly basis and made our personal cleanliness a hope for the future. It can be realized that after a few days the need for proper ventilation made itself objectionally noticeable.

In spite of the foregoing, our existence was envied by our tent-dwelling neighbours; and the number of people who "just happened to be passing by" at evening cocoa time increased beyond the limits of our water boiling facilities. Being the centre of the social life of the great unwashed did, however, help to make the friendly north a little more so. In this friendly and democratic atmosphere of the trailer the little annoyances, such as caribou hairs in the drinking water and hauling wood at 40 below, became very little indeed.

As all relieving parties should be, ours certainly will be well remembered. It literally took over in a blaze of glory! Due to the limited sleeping accommodation, the relief party, consisting of WOs I Frank Bridges and Don Brown of The RCEME School, Barriefield, bedded down in our flame-proofed tent. When the tent unreasonably decided to go up in flames the next morning WO I Bridges scrambled out in the sparse covering provided by nature and extinguished the blaze with snow. Great presence of mind was exhibited by WO I Jack Wilson, a CSRDE visitor, who paused to pull on his trousers but the effect of this example of cool thinking was destroyed when he was discovered to have his trousers on backwards!

The arrival of Capt "Mike" Grainger, of DME, marked the official ending of our duties. It will be some time before we forget the luxury of the steam bath and clean clothing at Churchill but I'll sit this next one out, if you don't mind. When I lose the desire to nail all the windows closed, I'll let you know.

WOs I Frank Bridges (left) and Don Brown.

ARCTIC BREATHING DEVICE

Regarding body heat, man is a tender animal indeed. (Man is an animal, according to a report of the Office of Naval Research which reads, "The homeothermic animals, of which man is the most important example...") We homeotherms are extremely sensitive to small changes in body temperature, which is normal at 98.6° Fahrenheit. A drop to 86 - 90° results in lethargy or unconsciousness, and further drop to about 84.5° usually brings death.

The body gets its heat from the biological oxidization of food -- carbohydrates, fat and protein. The amount of energy derived from these is equal to that of simple burning, except that proteins give somewhat less energy in the body. The energy liberated by the process of oxidization is dissipated either in mechanical work or as heat, the latter forming by far the greater proportion.

The body loses its heat and moisture through two principal causes -- contact with atmosphere colder than body temperature (about 77%) and the necessity of warming and humidifying inhaled air (about 20%).

When a human being becomes cold, several natural processes automatically set in to partially take care of him. Shivering increases heat production, skin pores close up tightly, the heart beats faster and the blood is pooled in the warm internal organs. "Goose-flesh" which arises on humans, while of no value in heat retention, brings out man's similarity in one respect to the lower homeotherms, such as furry animals and birds, whose sets of similar muscles cause erection of hair or feathers, thus increasing insulation.

In addition to natural compensation, man has also come to rely upon artificial adaptation to temperature changes through use of stoves and clothing.

Natural or artificial, these means may not be enough in below-zero weather. Recent studies indicate that at 14° below zero the body uses up 15 per cent of its heat output in the simple process of warming and humidifying respiratory air. And at 70° below zero Fahrenheit, the body requires 17 per cent of its heat output for normal breathing. Although heat production is stepped up in colder weather, increasing quantities are necessary for respiration.

The answer to this pressing problem seems to have been provided by the Arctic breathing device developed by scientists working under contract with the Office of Naval Research. If the perfected final product matches the efficiency of the test model (scientists think it will easily exceed it), personnel at work in 14° below zero weather through use of the Arctic breather will take in air at plus 75° Fahrenheit. At 70° below zero air inhaled directly would cause a blistering, cutting cold that feels as if it were actually slicing into the forehead and nasal passages. With the breathing device it would be inhaled at approximately 64° Fahrenheit -- just like spring.

Since cold weather is normally very dry, loss of moisture is another problem which the Arctic breathing device takes care of. Its main function, that of capturing heat and moisture from exhaled air and transferring both to inhaled air, is performed inside a small canister containing a metal sheet wound to form gradually converging passages. So simple is the working principle that it was perhaps for that reason scientists studied the problem for years without success. This research, performed in wartime, centered around complex heaters which were either too unwieldy to be considered or didn't work at all.

Exhaled air is breathed into a mask covering both the nose and mouth and is carried into the center of the canister through a tube. Although the canister is only a few inches in diameter, before reaching the outlet valves the exhaled air must go through several feet of passage where all the heat and moisture is extracted by the walls which separate the passages. These walls are mutual between the passages with the result that inhaled air picks up the heat and moisture before reaching the body's respiratory system.

Expired air is not re-breathed again from the canister, for the continued increase of carbon dioxide would result in nausea, headache and even death. It leaves the canister through one passage and inspired air comes in the other.

Chances are the finally completed breathing gear will look similar to an ordinary gas mask, except that the eyes probably will not be enclosed. Because it will offer less "resistance", breathing will be much easier than through a gas mask. The Arctic breather also will weigh less -- something under a pound according to estimates by the scientists in charge of its development, Dr. Norman E. Phillips and Mr. Loyal Goff of the University of Maryland.

Four-fifths of the heat normally required for breathing was saved by the first test model. While this is a very enheartening gain in itself, high hopes are entertained by ONR and participating scientists that the perfected device will increase that figure to 100 per cent conservation, or close to it.

Homeothermic man, through science, is rapidly becoming an all-weather creature.

Condensed from "All Hands";
Bureau of Naval Personnel Information
Bulletin (USA)

* * *

CONGEALED GASOLINE

Present conceptions of the storage, transportation and use of petroleum products may be revolutionized if the research being conducted by the Quartermaster Corps in congealed gasoline results in perfection of this newly developed material to a point where it is practical for use in internal combustion engines, jet motors, and for fuel.

Congealed gasoline does not explode. It may be stored in open bins and shipped in ordinary freight cars like coal. It is possible to convert any grade of gasoline, kerosene, fuel oil, or any other petroleum product into a semi-solid or even solid state without changing the characteristics of the original fluid. Reconversion to the fluid state is accomplished by compression.

Tests have shown that congealed gasoline does not readily ignite. When sufficient heat is applied to cause combustion, it burns like coal. When converted from the solid form to fluid, a small percentage of residue remains. The percentage varies with the degree of hardness to which the product has been processed, being higher with the firmer types. The research program is trying to find feasible methods for reconverting the congealed gasoline before it is fed into motors, burners, or their using devices.

(The Quartermaster Review (U.S.))

RECEIVER ANTENNA CIRCUITS

The following brief listing of the characteristics of various antenna circuits may enable us to understand the designer's choice of circuit for a specific application. Most of us have wondered why the "slide rule boys" chose the seemingly complicated circuit instead of a nice simple, straightforward R.F. transformer to couple the receiver antenna to the first tube. This explanation of the four basic circuits should give us some insight into the choice. We must remember that there are considerations other than electrical in the design of a receiver; ease of manufacture and expense being among the chief ones. In military transceivers and transmitter-receivers the fact that the receiver uses the same antenna as the transmitter must also be considered. Most of the antenna circuits we encounter will be one of the following or a combination of two of them.

The circuit usually found in household broadcast receivers is the high impedance primary inductive coupling circuit, quite frequently combined with high impedance capacity coupling. In spite of its long name it consists of simply an R.F. transformer with rather loose coupling. The primary winding has a higher inductance than the secondary; usually .75 to 1.5 millihenry for the primary and from 230 to 260 microhenry for the secondary when used on the broadcast band. The high impedance of the primary gives the circuit its chief advantage.

Since changes reflected through the transformer depend among other things on the turns ratio of the transformer, changes in the antenna itself will be minimized in their effect on the secondary tuning with this type of circuit. The circuit gives a fair amount of gain and has a good image rejection ratio. Because of the loose coupling and the high impedance of the primary, gain falls off at the higher frequencies. This is overcome to some extent by connecting a condenser of from 3 to 10 mmfd from the antenna to the grid end of the secondary. This will work only when the current from the condenser is in the right direction to boost the secondary current.

The next type of circuit is the low impedance primary inductive coupling. This type is used almost exclusively on the short wave bands. It uses an R.F. transformer with a low impedance primary tightly coupled to the secondary and because of this is capable of high gain. It also reflects antenna changes much more easily than the high impedance primary type and antenna adjustments are critical. This circuit gives increased gain at the high frequency end of the band and therefore has a poor image rejection ratio.

High impedance capacity coupling uses a single coil instead of a transformer and feeds the signal from the antenna through a condenser of from 3 to 10 mmfd to the side of the coil. This type of circuit has poor image rejection characteristics and is used only where simplicity is desired. It is sometimes used in conjunction with high impedance inductive coupling to increase the gain at the high frequency end of the band.

Low impedance capacity coupling is used for installations such as car radios where long shielded lead-ins are necessary. The signal is fed from the antenna through a high capacity (.001 to .003 mfd) condenser to ground. The low side of the grid coil is connected to the junction of the condenser and antenna. The signal current develops a voltage across this condenser which is amplified by the tuned circuit and applied to the grid. A D.C. path, consisting of a high resistance must be provided from grid to ground. The capacity between the lead-in and shield which would normally cause losses can be used as part of the coupling capacity and increase efficiency. The chief disadvantage of this type of circuit is the fact that where an R.F. amplifier is used the tuning condenser of the following stage must be of a different size, or must have a capacity equal to the antenna coupling capacity, in series with it, for tracking purposes. Hum frequencies picked up by the antenna can be bypassed to ground from the antenna through the R.F. choke.

You should now have an inkling of why a certain circuit is used if you remember the other considerations mentioned in the opening paragraph. It may not help in servicing them but it's good to know why.

* * *

SMILE WITH OUR CONTEMPORARIES

"Burglars broke into my house last night?"
"My goodness, what happened?"

"My wife's relatives yelled 'We were here first' and chased them away."

-- Camp Borden Citizen

* * *

The difference between a cutie and an old maid is that the cutie steps out with the johnnies while the old maid stays home with the willies.

-- Camp Borden Citizen

* * *

Mad Provost Sgt: "Hey, you. Didn't you see me signal?"

Be-fogged soldier, "Nope"
Provost: "Didn't you hear me whistle?"
Soldier: "Nope"
Provost: "Guess I better go back to camp I'm not doing any good around here."

-- Western Commander

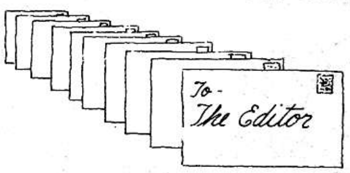
* * *

Craftsman (on telephone): "Hello, what are you doing?"
Woman's voice: "Getting ready for church"
Craftsman: "Sorry. Wrong number."

-- Western Commander

* * *

Letters



136 Highland Cresc.,
York Mills, Ontario
4th March, 1949

The Editor,
R.C.E.M.E. Quarterly,
Directorate of Mechanical Engineering,
A.H.Q., Ottawa

Dear Sir:

Encouraged by the Forward & Editorial of January issue of the above, even though only an eight month fledgling with the Corps, I wish to add my voice in congratulation.

The only other corps paper I have read was the R.C. Signals monthly during the war and can safely say that, R.C.E.M.E. Quarterly is definitely a First.

Another First in our minds at Varsity is the fact that ours has been the only Corps to date, to bring "espirt de corps" home to us new recruits, through the visit of Major J. S. Kitto, M.B.E., O.C. #2 Coy., Malton, Ontario, who outlined R.C.E.M.E. activity in Canada and advised us repostings on graduation.

In line with your Editorial Mr. Editor, I would like to pass on a suggestion (for what it is worth) and that is with respect to libraries.

Many of us are members of Engineering Associations eg: E.I.C., A. S.M.E., S.A.E., Etc., receiving their excellent journals. We probably shelve them only to collect dust after reading. Why not make these available to all ranks in our home units which do not subscribe to particular journals? Also a central body could be set up where duplicate copies could be sent for re-distribution, especially to our northern and other smaller units having limited libraries. Even back issues, months old, contain interesting ideas possibly overlooked.

This scheme probably exists in many outfits at present. If so it could possibly be improved upon by the use of a circulated mailing list showing particular needs of the unit, together with its available journals.

Sincerely,

(Sgd) H. F. Protheroe, 2/Lt.
University of Toronto

* * *

The Editor
RCEME Quarterly,
D.M.E. AHQ.,
Ottawa, Ontario

Dear Sir:

I read with interest your story on the REME crest which was presented to all ranks RCEME. We can stand more information of this type -- why not an article on the badge of our own Corps? How it originated, who designed it, etc.?

There is one thing I would like to know, however, and that is why the shield has to hang in the officer's mess, where very few ORs will ever see it. It WAS presented to ALL ranks, or so it says on the plate beneath the shield.

Why couldn't it be placed in the admin office where everyone would have a chance to examine it?

(Sgd) M. S. S. (Sergeant)

RAM JETS GROUND-TESTED

The behaviour of ram jet engines up to an altitude of 60,000 feet is being studied by Navy scientists by use of a new test stand.

Ground-testing of ram jets in the stand will save thousands of dollars by providing performance data that otherwise could be obtained only from costly flight tests.

The mechanism of the stand allows the operators to vary the atmospheric conditions from sea level up to 60,000 feet. Only a small crew is required to operate the stand and several scientists can make observations and obtain data from a battery of windows in the combustion chamber of the jet simultaneously.

Because of the terrific heat generated by the jet blasts, a special 60-foot cooling tower was built to lower the temperature of the exhaust gases before discharge to the atmosphere. The exhaust gases flow into the tower at extremely high velocity and are sprayed with normal temperature and refrigerated water at three points in the tower before discharge. If the temperature of the jet rises above a safety point its fuel and air supply are automatically cut off.

The test stand is the first ever built to allow such a variety of simulated flight conditions. It was built by the Applied Physics Laboratory of Johns Hopkins University under the sponsorship of the Bureau of Ordnance.

-- All Hands; The Bureau of Naval
Personnel Information Bulletion (USA)

RCEME ORS ATTENDING UNIVERSITIES

There are six RCEME ORs attending universities throughout Canada at public expense who will receive commissions in the corps upon completion of their academic and officer training. The six are:-

Sgt F. Chess	Queen's University
Sgt H.A. Hadfield	McGill University
Sgt D.M. Maher	Queen's University
Sgt W.D. Sneddon	University of British Columbia
Cfn R.L. MacIntosh	University of British Columbia
Cfn O.D. Smithe	University of Manitoba

It is heartening to note that all these men are doing well and have adapted themselves to their work in a manner that will ensure their success and make them a very definite asset to the Corps.

JEEPS CAN'T FLY

REPRINTED FROM CAM

You remember Icarus. The ancient Greek legend tells how his father made wings from feathers held together by wax and the two of them used to soar around like birds.

But Icarus, one day ignoring his father's warnings, went too high in the air and the sun melted the wax in his wings and down he came into the sea.

It's an ancient legend of course, but it tells a story that's just as applicable in 1949 as it was nearly three thousand years ago.

Icarus couldn't resist the temptation to see how high he could go, despite the advice and warnings of wiser council.

In doing so he abused a mode of locomotion that was still susceptible to the laws of nature.

Jeeps, too, believe it or not, are susceptible to these laws.

According to all informed sources, vehicles that fly are commonly known as aeroplanes, gliders, blimps etc. Quarter ton 4 x 4 light utility trucks are never mentioned in this respect and lack many essentials in design (wings, for example) necessary to provide good aerial locomotion.

The jeep was originally designed as a reconnaissance car and was developed over a period of about ten years into its present form. That's a fairly long period of development but the result has been a vehicle that has met the approval of all ranks and proved one of the best and most practical automotive contributions to modern warfare. The jeep is easy to drive and is probably the most agile of our vehicles.

But this reputation has been exaggerated far beyond the ability of the jeep, or any other vehicle, to live up to.

However, if you're ever feeling in an argumentative mood and wish to provoke a slam-bang debate some quiet evening, just elbow your way into a group of soldiers and make a statement like "I don't think a jeep could get up THAT mud cliff", or "I'll bet a jeep couldn't climb THAT tree". Right off you've got a full scale battle on your hands with the lads who figure a jeep can do anything. And don't think these jeepists haven't lots of evidence to back up their arguments, too.

National advertisers, and their commercial artists, have seized on the jeep as the symbol of army toughness and mobility, have picturized the jeep doing everything that the limits of their imagination will allow. Quite common are pictures of jeeps taking off from ten foot cliffs into rocky creeks -- travelling at terrific speeds over boulder-strewn ditches or over sand dunes (always a cool three or four feet off the ground) while about six grim looking gentlemen on board pour machine gun fire in all directions, 30 ton tanks lie in smoking heaps all around and planes come raining down in flames from the sky.

The greatest heroes of Greek mythology with their flying horses and feather and wax wings are pikers compared to our Joe with a jeep.

These "hollywood shots" and the accompanying extravagant press publicity have provided Joe Mush with the excuse for jumping into a jeep and seeing what she'll do and generally giving her hell whenever the opportunity arose. This keeps the MOs, the factories and workshops busy, but doesn't do the jeep or the army any good.

Don't think that we're belittling the jeep -- we'll agree with every other fellow who has driven one, that they're a remarkable little buggy, outstandingly rugged and reliable, and capable of going places that would make a western pony stop and think twice. But they're still a 5 cwt 4 x 4 built like any other army vehicle -- with a chassis, axles, springs, wheels and lots of nuts and bolts subject to breakage and fatigue, loosening, and strain, and while they will take an enormous amount of abuse unfortunately this leads to the belief that they can be abused indefinitely.

Let's be sensible about jeeps.

Remember they are subject to the civil speed limit on any highway and the military maximum of 40 mph where the civil laws are higher than this. Cross country calls not for aerobatics but careful commonsense driving -- the avoidance of rocks and pot holes. Flying close to the ground or just hitting the high spots with a jeep is spectacular but plain murder to the vehicle.

We have a well equipped air force and they have machines that can get well off the ground and miss even the high spots; let them do the high stuff while you stick close to the contours. Overseas, a jeep was driven with care -- just like any other vehicle, because the driver knew that if he mistreated it he'd break something -- and he'd be foot slogging his way -- instead of having the services of a good vehicle. If you don't believe us -- take a careful look at the authentic photos and news "reals" from the front showing jeeps in use. They're not driving them as tho' the back panel was trying to bite the seat out of their pants. They know a jeep can't do the impossible and must be driven sensibly on the ground -- that it must be regularly checked and lubricated, and, if abused is subject to failure like any other man-made piece of equipment, and most of all, they know that an ounce of driver preventive maintenance is worth a pound of workshop cure. Preventive maintenance in this case meaning -- keep that jeep where it belongs -- on the ground.

Take a tip from these blokes who, like Icarus' father, know what they're talking about.

* * *

BOLTS & ASSORTED CLIPS

by **AR-VEH-TELS**

OFF TO BISLEY

Cpl F.W. Jermey, 202 Base Workshop, Montreal, will represent the Corps on the Canadian Bisley Team when it sails from Quebec City on Jun 10 for England. He takes with him the very best wishes of us all — good luck, corporal.

The coveted job of armourer for the team this year goes to Sgt H.A. Patterson, also of 202 Base Workshop, who will be able to do the cheering on behalf of the Corps.

COMPROMISE, MODERN EUROPEAN MANNER

This story is going around Europe. A hunter named Sam went out with a long-range rifle, and came upon a huge bear. The bear was not as well armed, but he had claws and wit. So he asked the hunter, "What are you looking for?" Said the hunter, "I want to get myself a fur coat." "Well," said the bear, "I'm looking for my breakfast. Why not come around to my den and we'll talk it over."

The hunter and the bear sat down to work out an agreement. After a while the bear got up all alone. They had reached a compromise. The bear had got his breakfast, and the hunter had on his fur coat.

— The Petawawa Camp Post

For comfort and easier dressing, the Locket Bra Co., of New York is making a nylon brassiere that fastens in the front instead of the back. A feature of the brassiere is the fastener itself, a tiny metal lock and key.

— Newsweek.

SECURITY CONSCIOUS (?)

WAINWRIGHT CAMP

Reserve and Active Force RCEME from Vancouver, Trail, Vernon, Edmonton, Calgary and Drumheller were united at Wainwright Camp and really had a thorough work-out in practical field problems.

All concerned really enjoyed themselves and the highlight of the whole camp was when the cameraman from Associated Screen News screened the RCEME recovering a slightly dilapidated staff car from a deep ravine. Never was a recovery task so quickly, accurately and cheerfully carried out.

Recovery — it will take some time for many of the gang to recover from this camp, but in future campaigns they will be veterans. French beds won't phase them in the least. Pay from Saturday night's pay parade might last them over Sunday next time.

Cfn Simpson from Vancouver appears the nominee for the RCEME Training Wing Hall of Fame. By his aptitude and initiative along mechanical lines, his instructors said that should he ever join the AF they would be very pleased to have him as a fellow worker. Other members of the wing also turned in outstanding jobs and helped the AWD in many tasks which greatly increased their working knowledge.

— The Western Commander

We award the hand-painted metaphor to the Shilo Observer sports writer who says (headline) "Shilo Exterminates Minnedosa". Having got rid of the opposition thus, he continues with his lead: "Shilo went to a picnic last weekend and they buried Minnedosa with all the trimmings under a hetacomb of thirty-three goals in two games."

That's the West for you -- whoopee!

* * *

A soldier should be a young man, sound of all his limbs, of a good resolution, and quick of apprehension, rather pleasant than sullen, and a hater of idleness; let him company with better than himself, and if he mean to rise by the wars let him make a pleasure of the greatest toile. He must keep as good cloaths to his back as he can get, and his arms bright, and handsome, and a good sword by his side when he walketh abroad, with a good tongue in his head; and be obedient to his officer, and above all to serve God, whom I pray to protect him.

-- Military Discipline
by Joseph Ward (1636)

* * *

Little girls choose dolls for toys;
While soldiers are the choice of boys;
But when they're grown up you will find
That each has had a change of mind.
The girls prefer the soldiers then,
And baby dolls attract the men.

DR. JEKYLL AND MR. HYDE

A student of literature recently inquired whether, for his story with the above title, Robert Louis Stevenson had obtained the names of "Jekyll" and "Hyde" from the list of Members of the Society of Telegraph Engineers. On referring to the first list, which was published in 1872, it was found that the names "Hyde, H., Col R.E." and "Jekyll, H., Lieut. R.E." appear next to each other. Unless the arm of coincidence is a little longer than one may reasonably suppose, such strong internal evidence, supported by the date of the document, does indeed suggest that R.L.S. may have obtained the names from this source. In the same list there is a "Stevenson" — but, alas, the initials are not "R.L.".

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WE'RE NOT SELLING GROCERIES, BUT —

The cash value of courtesy is being determined by the National Grocers Institute with the use of photo recorders. So far they have learned that when super market checkers greet each customer with a smile and a few friendly words, lines move faster; more customers with more purchases pass through; and buyers co-operate by having money ready and arranging goods on the counter.

— Tire, Battery & Accessory News

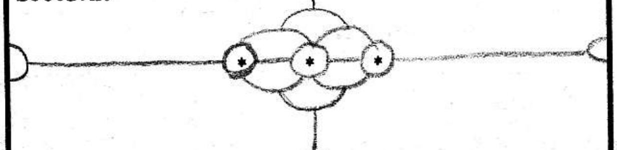
On the evening of 21 Feb 49, Major Murray F. Carriere, 2 IC HQ RCEME 1 Corps Troops died as a result of injuries received in a car accident in Toronto, Ont.

Major Carriere was a well known member of RCEME and saw action in France, Holland, and Germany. He served with the following units:

3 Army Field Workshop	Apr 41 - Oct 41
36 LAD, 7 CIB	Oct 41 - Jun 42
20 LAD	Jun 42 - Dec 42
3 LAA Wksp	Dec 42 - Jun 43
CREME 3 Div (Adjt)	Jun 43 - Sep 44
7 CIB Wksp (2 IC)	Sep 44 - Jan 45
4 CIB Wksp (OC)	Jan 45 - Sep 45
5 CAT Wksp (OC)	Sep 45 - Nov 45

Interment took place Friday, 25 Feb 49. The funeral was attended by Major P.F.L. Sare, representing the GOC, Central Command; Lt-Col H.L.K. Mason, Comd EME, Central Command; Col H.G. Thompson, representing the RCEME Corps Association; Lt-Col F.W. Cranston, CREME 1 Corps Troops; Lt Col LeS Brodie, CREME 2 Armd Div; Maj I. Malcolm, OC 4 Armd Wksp RCEME; Capt W.H. Ackhurst, Adjt CREME 1 Corps Troops; Capt M.K. Strang, HQ RCEME 1 Corps Troops; Lieut R.E. Austin, OC 70 LAD RCEME.

Major Carriere was employed in civilian life by the Canadian General Electric Co. Ltd., Head Office, Supply Department, Toronto, Ont, and was the Manager of the Pole-Line Hardware Section.



Capt E.M. Rowe, of 202 Base Workshop Montreal, died on Sunday 3 April, from coronary thrombosis.

Capt Rowe joined the Cape Breton Highlanders (NPAM) in Jun 1930 and transferred to RCE in 1936. He served with RCE, RCCS and RCOC before transferring to RCEME in May 1944. He proceeded overseas in Dec 1941 and was commissioned from the ranks in Dec 1943. On return from overseas in Sep 1945 he served with No. 204 and 202 Base Workshops.

PERSONALITIES

Lt-Col A. Mendelsohn is now with the CAS Washington as liaison officer to the AGF.

Major H.W. Hagey is now the OIC No.214 Workshop, Vancouver.

Major W.M. Dalrymple has been posted to command No. 16 Coy at Whitehorse.

The following captains have been promoted to the rank of major:

D.D. Campbell, who will be DADME in Workshop Group, DME.

R.I. Davis, who will be the new OIC 228 Workshop Hagersville.

W.A. Down

G.R. Lodge, who has been posted to RCEME School Staff

W.J. Owens

J.P. Sherren, who becomes DAAG, Pers RCEME.

D.C. Smiley, who is being posted to Fort Churchill as DADME.

J.W. Whittingham, who becomes OIC 205 Base Workshop, Camp Borden.

Major J.W. Blatchford has relinquished command of No. 16 Coy on his retirement from the Active Force.

Major H. Goodfellow has been posted to the UK for duty with AORG.

Capt F.L. Demone is now with No. 1 Coy.

Lieuts C.J. Bradley and G.E. Morrison have resigned their commissions at their own requests.

Lieut C.G. Racicot has been promoted to Capt.

Capt E.W. Cole has been posted from the RCEME School to No. 7 Coy, Coldbrook, NB.

Major W.J. Owens, Captains J.C. Currie, E.C. Ilott, R.A. Morris and D.J. Tidy have been selected to attend the Military College of Science Technical staff course (UK) commencing in Oct 1949.

Capt T.R. Heal has been selected as a waiting member.

Capt R.D. Maybee is now OIC 208 Workshop, Ottawa.

Capt K.F. Collins on return from the UK has been appointed GSO III in DWD, AHQ.

Lieutenants J. Adams; B.B. Cox; J.B. Dewhurst; R.F. Fendick; A.W. Hughes; H.L.M. King; C.G. Lawrence; T.P. Palfrey; R.C. Rivers; I.C. Scarlett and J.M. Treleaven have been promoted to captain.

Lieut H.E. McLaughlin has been promoted to Capt and is being posted to The RCEME School.

Lieut E.A. Williams has been promoted to Capt and has been posted to 23 Comp Bde Gp Workshop.

Major H.M. Robinson and Capt A.L. Sloan have completed courses at C.J.A.T.S., Rivers, Man., according to the Western Commander.

Many ORs are attending courses in the UK and the USA, keeping up to date in their trades and preparing for advancement. (We apologize in advance for any omissions — they are not intentional.

WO I G.E. Coupland is attending the School of Coastal Artillery in the UK.

WO II N.A. Wright and S/Sgt E.B. MacLellan are both taking an instruments course in the UK.

Cpls W.H. Dukes; E.P. Walberg; G.E. Higman and L.W. McLeod are at the Ordnance School, Atlanta, Ga.

WO II R.D. Young; WO II F.J. Burton; Sgts R.S. Curwood; E.A. Drake; T.C. Hooper; Cpl J. Walker and L/Cpl J.H.G. Cadieux are at the Engineer School, Fort Belvoir, Virginia.

WO II A.E.D. Elliott; S/Sgt S. Norberry; Cpls R.P. Slaughter and A.L. Bellefontaine are all attending the Ordnance School at Aberdeen, Md.

S/Sgt G.P. Yule and Cfn W.C. Wacey are at the Quartermaster School, Camp Lee, Va, studying office machine repair.

Sgt H.L. Vermette, Cpl R. Lefebvre and Cfn G.E. Einarson are studying teletype repair at the Signal School, Fort Monmouth, N.J.

WO II A. McFarlane is attending a tire rebuilding Course at the Ordnance School, Aberdeen, Md.

Cfn L.A. Paradis is attending the carburetion and fuel injection course at the Ordnance School Aberdeen.

Cfns S.H. McCaughey and H.E. Plantz are on an electric and acetylene welding course at the Ordnance School, Atlanta, Ga.

L/Cpl F. McCall and Cfn G.S. Miller are attending an automotive body repair course, also in Atlanta.

Cfn A.S. Swanky is attending a track vehicle maintenance and repair course at Ordnance School Aberdeen.

WO II S.S. Stainton, chief clerk, Central Command HQ, is being discharged on medical grounds, according to Issue 4 of Central Command sitrep.

Major J.M. Harding has joined HQ RCEME 1 Corps Troops, Toronto, from the Supplementary Reserve.

Capt H.E. Saunders has been taken on strength of the 19 Armoured Workshop in Oshawa as SPSO of the Workshop.

GOOD DRIVERS

Although the Service Competition in the Annual Truck "Roadeo" (held in Toronto last Dec) is not exactly news, certain RCEME personnel deserve honourable mention for the part they played. Cfn P.E. Watson, 6 Coy Halifax, was half of the two-man team from Eastern Command in the Army Finals. Cfn R.J. King, 205 Workshop, Camp Borden, was a member of the Central Command Team in the Army Finals, in which he placed fourth and was named as the spare man on the Army Team in the Service Finals.